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**THE BEQUEST OF
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A
DESCRIPTION
= OF MORE THAN
THREE HUNDRED ANIMALS.

INTERSPERSED WITH
ENTERTAINING ANECDOTES,

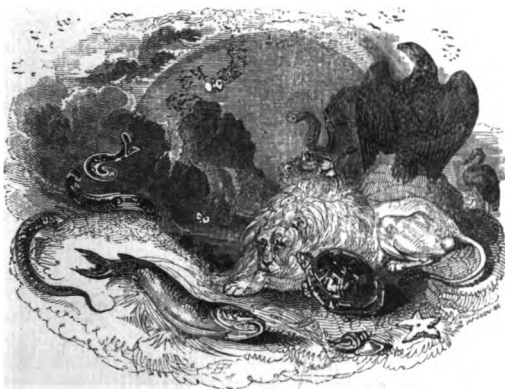
AND

Interesting Quotations from Ancient and Modern Authors.

TO WHICH IS ADDED
AN APPENDIX,
ON ALLEGORICAL AND FABULOUS ANIMALS.

THE WHOLE ILLUSTRATED BY
ACCURATE FIGURES, FINELY ENGRAVED ON WOOD.

A NEW EDITION,
REVISED AND MUCH ENLARGED.



LONDON:
PRINTED FOR BALDWIN AND CRADOCK;
BY C. WHITTINGHAM, CHISWICK.

1829.

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EXPLANATION

OF

TERMS USED IN NATURAL HISTORY.

<i>AMPHIBIOUS.</i>	Capable of living both on the land and in the water.
<i>Animalcules.</i>	Small animals, visible only with the assistance of the microscope.
<i>Annulated.</i>	Marked with rings.
<i>Antennæ.</i>	The horns or feelers of insects.
<i>Antlers.</i>	Horns overhanging the brows.
<i>Aquatic.</i>	Living or growing in the water.
<i>Bifid.</i>	Divided into two parts.
<i>Bimaculated.</i>	With two spots, or two series of spots.
<i>Bivalve.</i>	With two shells or openings.
<i>Callosity.</i>	A hard lump, an excrescence.
<i>Canine.</i>	Of the dog kind.
<i>Carnivorous.</i>	Feeding on flesh.
<i>Cere.</i>	A skin over the bill of birds; sometimes moveable, as in parrots.
<i>Cetaceous.</i>	Of the whale kind.
<i>Cinereous.</i>	Of the colour of ashes.
<i>Columbine.</i>	Of the dove or pigeon kind.
<i>Cordiform.</i>	Heart-shaped.
<i>Crustaceous.</i>	Covered with a shell or crust; as lobsters, crabs, &c.
<i>Digitated.</i>	Having the feet divided into toes or fingers; as in cats and dogs.
<i>Dorsal.</i>	Belonging to the back.
<i>Elytra.</i>	The wing-cases of insects of the beetle tribe.
<i>Exanguineous.</i>	Without blood, as worms.
<i>Entomology.</i>	A description of insects.
<i>Feelers.</i>	The antennæ or horns of insects.
<i>Feline.</i>	Belonging to the cat kind.
<i>Ferruginous.</i>	Of an iron or rust colour.
<i>Frugivorous.</i>	Feeding on seeds.
<i>Furcated.</i>	Forked.
<i>Gallinaceous.</i>	Belonging to the hen kind.
<i>Gestation.</i>	The time of going with young.
<i>Granivorous.</i>	Feeding on grain.
<i>Gregarious.</i>	Associating together.
<i>Herbivorous.</i>	Feeding on grass.
<i>Hoof.</i>	The horny substance that protects the external part of the foot in some quadrupeds.

<i>Ichthyology.</i>	A description of fishes.
<i>Imbricated.</i>	Tiled or plated over each other.
<i>Incubation.</i>	The act of hatching eggs.
<i>Insectivorous.</i>	Feeding on insects.
<i>Laminated.</i>	In the form of, or covered with, plates or scales.
<i>Larva</i>	The young of insects.
<i>Lateral.</i>	Belonging to the side, placed sideways.
<i>Mandibles.</i>	Upper and lower, the two divisions of a bird's beak.
<i>Migratory.</i>	Coming and going at certain seasons.
<i>Multivalve.</i>	With many shells or openings.
<i>Nictitating.</i>	Winking: applied to a membrane with which birds cover their eyes at pleasure.
<i>Obfuscated.</i>	Of a darkish colour.
<i>Olfactory.</i>	Relating to smell.
<i>Operculum.</i>	A shield or cover.
<i>Ornithology.</i>	A description of birds.
<i>Oviparous.</i>	That lays eggs.
<i>Parturition.</i>	The act of bringing forth young.
<i>Passerine.</i>	Belonging to the sparrow kind.
<i>Pectoral.</i>	Belonging to the breast.
<i>Pendulous.</i>	Hanging down.
<i>Piscivorous.</i>	Feeding on fishes.
<i>Predaceous.</i>	Formed to pursue prey.
<i>Proboscis.</i>	The flexible trunk of the elephant, bee, &c.
<i>Quadrifid.</i>	Divided into four parts.
<i>Reptiles.</i>	Animals of the serpent tribe, with legs.
<i>Ruminating.</i>	Chewing the cud.
<i>Scabrous.</i>	Rough.
<i>Scapulars.</i>	Shoulders.
<i>Semilunar.</i>	In the form of a half-moon.
<i>Setaceous.</i>	Having bristles or strong hairs.
<i>Spiral.</i>	Winding like a screw.
<i>Striated.</i>	Streaked or striped.
<i>Subulated.</i>	Formed like an awl.
<i>Tentacula</i>	The feelers of worms.
<i>Testaceous.</i>	Covered with a shell, as oysters.
<i>Trifurcated.</i>	Three-forked.
<i>Truncated.</i>	Appearing as if cut off.
<i>Umbrageous.</i>	Spreading.
<i>Univalve.</i>	With one shell or opening.
<i>Ventral.</i>	Belonging to the belly.
<i>Vertebrated.</i>	Having a jointed spine-bone.
<i>Viviparous.</i>	Bringing forth the young alive.
<i>Webbed.</i>	Connected with a membrane, as the claws of aquatic birds.
<i>Zoologists.</i>	Writers on animated nature.
<i>Zoology.</i>	The history of animated nature.
<i>Zoophyte.</i>	An animal plant, or sensitive vegetable.

INTRODUCTION.

ANIMALS are natural bodies which possess organization, life, sensation, and voluntary motion; and Zoology is that branch of natural science which treats of their systematic arrangement, their structure and functions, their habits of life, instincts, and uses to mankind.

The objects comprehended within the animal kingdom are divided into six classes: Mammalia or Mammiferous Animals, Birds, Amphibia or Amphibious Animals, Fishes, Insects, and Worms: which are thus distinguished:

CLASSES.

Body	{ With vertebræ	Hot blood	{ Viviparous....	I. MAMMALIA.
			{ Oviparous	II. BIRDS.
	{ Without vertebræ.	Cold red blood	{ With lungs ...	III. AMPHIBIA.
			{ With gills ...	IV. FISHES.
		Cold white blood	{ Have antennæ	V. INSECTS.
			{ Have tentacula	VI. WORMS.

The first class, or Mammalia, consists of such animals as produce living offspring, and nourish their young ones with milk supplied from their own bodies; and it comprises both the quadrupeds and whales.

This class has been distributed into seven Orders; of *primates, bruta, feræ, glires, pecora, belluæ*, and *cete*, or whales. The characteristics of these are founded, for the most part, on the number and arrangement of the teeth; and on the form and construction of the feet, or of those parts in the seals, manati, and whales, which supply the place of feet.

ORDERS OF MAMMALIA.

- I. PRIMATES...Have the upper front teeth generally four in number, wedge-shaped, and parallel; and two teats situated on the breast, as the apes and monkeys.
- II. BRUTA.....Have no front teeth in either jaw; and the feet armed with strong hoof-like nails, as the elephant.

- III. *FERÆ* Have in general six front teeth in each jaw ; a single canine tooth on each side in both jaws ; and the grinders with conic projections, as the dogs and cats.
- IV. *GLIRES*... Have in each jaw two long projecting front teeth, which stand close together ; and no canine teeth in either jaw, as the rats and mice.
- V. *PECORA*.. Have no front teeth in the upper jaw ; six or eight in the lower jaw, situated at a considerable distance from the grinders ; and the feet with hoofs, as cattle and sheep.
- VI. *BELLUÆ* . Have blunt wedge-shaped front teeth in both jaws ; and the feet with hoofs, as horses.
- VII. *CETE* Have spiracles, or breathing-holes, on the head ; fins instead of fore-feet ; and a tail flattened horizontally, instead of hind feet. This order consists of the narvals, whales, cachalots, and dolphins.

The second class, or Birds, comprises all such animals as have their bodies clad with feathers. Their jaws are elongated, and covered externally with a horny substance called a bill or beak, which is divided into two parts called mandibles. Their eyes are furnished with a thin, whitish, and somewhat transparent membrane, that can at pleasure be drawn over the whole external surface like a curtain. Birds respire by air vessels, which are extended through their body, and which, in the abdominal cavity, adhere to the under surface of the bones. Their organs of motion are two wings and two legs ; and they are destitute of external ears, lips, and many other parts which are important to quadrupeds.

Linnæus has divided this class into six Orders.

ORDERS OF BIRDS.

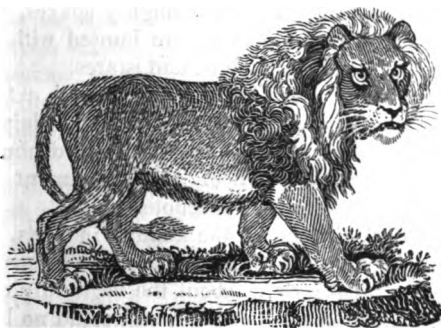
1. *Land Birds.*

- I. *RAPACIOUS BIRDS* (*Accipitres*) Have the upper mandible hooked, and an angular projection on each side near the point, as the eagles, hawks, and owls.
- II. *PIES* (*Picæ*) ... Have their bills sharp at the edge, somewhat compressed at the sides, and convex on the top, as the crow.
- III. *PASSERINE BIRDS* (*Passeres*) Have the bill conical and pointed, and the nostrils oval, open, and naked, as the sparrow and linnet.

THREE HUNDRED ANIMALS.

BOOK I.

OF QUADRUPEDS, OR FOUR-FOOTED BEASTS.



THE LION.

What if the Lion in his rage I meet?
Oft in the dust I view his printed feet:
And, fearful oft when Day's declining light
Yields her pale empire to the mourner Night,
By hunger roused, he scours the groaning plain,
Gaunt Wolves and sullen Tigers in his train:
Before them Death, with shrieks, directs their way,
Fills the wild yell, and leads them to their prey.

COLLINS.

THE LION, justly styled, by all writers, *the King of Beasts*, is generally of a tawny colour, in length from seven to nine feet, and his tail about four; in height between four and five feet: his head is large and strong; his nose thick; his mouth wide, and armed with numerous and strong teeth; his eyes are red, fiery, quick, and hollow: each of his fore feet has five

B

distinct claws, and the hinder ones, apparently, but four, as the fifth is placed higher up in the tarsus, or foot; they are of a whitish colour, about an inch and a quarter in length, crooked, moveable, sharp, and exceedingly hard. His roaring is so terrible, that, when other wild beasts hear the noise, their hearts pant with fear; although he is not himself, at times, without his dread of other creatures,—such as the tiger, the elephant, and some mighty snakes, which often give him battle.—Lions are hunted with dogs, but oftener taken in pits, nets, and snares.

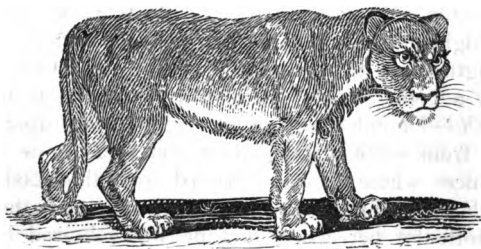
The generosity of the Lion has been much extolled; and he has been known to forgive, or disdain, the insults of smaller creatures, that had teased him with their inconsiderate petulance. His attachment is exemplified in the following anecdote.

M. Felix, the keeper of the animals in Paris, some years ago brought two Lions, a male and female, to the national menagerie. About the beginning of the following June, he was taken ill, and could no longer attend the Lions; and another person was under the necessity of performing this duty. The male, sad and solitary, remained from that moment constantly seated at the end of his cage, and refused to take food from the stranger, whose presence was hateful to him, and whom he often menaced by bellowing. The company even of the female seemed now to displease him; and he paid no attention to her. The uneasiness of the animal afforded a belief that he was really ill; but no one dared to approach him. At length Felix recovered; and, with intention to surprise the Lion, he crawled softly to the cage, and showed only his face between the bars: the Lion, in a moment, made a bound, leaped against the bars, patted him with his paws, licked his hands and face, and trembled with pleasure. The female also ran to him; but the Lion drove her back, and seemed angry; and, fearful that

she should snatch any favours from Felix, a quarrel was about to take place; but Felix entered the cage to pacify them. He caressed them by turns; and was afterwards frequently seen betwixt them. He had so great a command over these animals, that whenever he wished them to separate and retire to their cages, he had only to give the order: when he had a desire that they should lie down, and show strangers their paws or throats, on the least sign they would throw themselves on their backs, hold up their paws one after another, open their throats, and, as a recompense, obtain the favour of licking his hand.

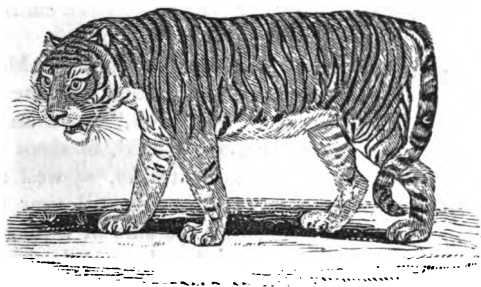
As the Lion belongs to the feline kind, his eyes are incapable of bearing a strong light; therefore it is in the night that he prowls and roams for prey. His strength is so great, that he has been known to carry away a young heifer and leap a ditch with it in his mouth.—Though the Lion generally springs upon his prey from some lurking place, yet there have been instances where he has deviated from this mode of attack. Dr. Sparrman has mentioned an instance. A Hottentot perceiving that he was followed by a Lion, and concluding that the animal only waited the approach of night to make him his prey, began to consider what was the best mode of providing for his safety; and at length he adopted the following:—Observing a piece of broken ground with a precipitate descent on one side, he sat down by the edge of it; and found, to his great joy, that the Lion also made a halt, and kept at a distance behind him. As soon as it grew dark, the man, sliding gently forward, let himself down a little below the edge of the steep; and held up his cloak and hat on his stick, at the same time gently moving them backward and forward. The Lion, after a while, came creeping towards the object; and, mistaking the cloak for the man himself, made a spring at it, and fell headlong down the precipice.

Lions have been known to live upwards of seventy years, as did Pompey, the large male Lion that died, in 1760, in the Tower of London.—The Lion is the constant companion of Britannia, as a national symbol of strength, courage, and generosity. In ancient gems, in paintings, and statuary, the Lion's skin is the attribute of Hercules. In scriptural compositions, he is painted at the side of the evangelist St. Mark; and holds the fifth place among the signs of the zodiac, answering to the months of July and August.



THE LIONESSE

Is in all her dimensions about one-third less than the male. She has no mane, which is proper to the male only, and to whose shoulders and neck it is a great ornament. She goes five months with young, and produces them in the spring; has a fresh brood every year, and four or five whelps at a litter, which she rears up with jealous fierceness, being most outrageous when any man or animal dares to approach her den. The young ones are about the size of a large pug dog, harmless, pretty, and playful; they continue at the teat twelve months, and are about five years in coming to perfection.



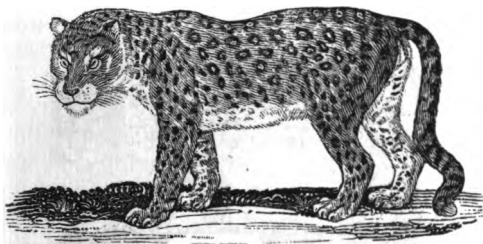
THE TIGER

Is the largest of the animals belonging to the feline kind; for he even exceeds the lion in size, and is of an unconquerable fierceness. His body is elegantly marked with longitudinal dark spots, or brown streaks, on a tawny ground. The Tiger is swift, and afraid of no beasts; all he attacks most furiously; yet he seems to be awed by the presence of man, as he never attacks him but when pressed by hunger, or the fear of losing his young. The cubs of the Royal Tiger are most elegant in their shape, and as playful as kittens. The marshy banks and swampy meadows of the Indus and Ganges harbour great numbers of these animals, whose stripes adorn the standard of the Mogul princes from time immemorial. The Tiger is perfectly untamable. Correction cannot terrify, nor indulgence reclaim him, from his ferocious propensities; and he is naturally so cruel, that when he attacks a flock or herd, he destroys all indiscriminately, and will hardly suspend his rage to satisfy his hunger.

The Tiger's method of taking his prey is in general by concealing himself, and springing suddenly on his

victim; he has been known to carry a horse or a buffalo on his back with such facility that the swiftness of his motion seemed scarcely retarded by the enormous load.

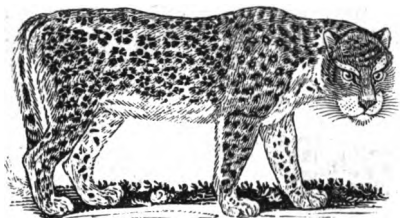
The attack of one of these animals upon Mr. Monro, son of Sir Hector Monro, was attended with the most tragical consequences. "We went," says an eyewitness, "on shore on Sangar Island, to shoot deer, of which we saw innumerable tracks, as well as of Tigers. We continued our diversion till near three o'clock, when sitting down by the side of a jungle to refresh ourselves, a roar like thunder was heard, and an immense Tiger seized our unfortunate friend, and rushed again into the jungle, dragging him through the thickest bushes and trees, every thing giving way to his monstrous strength: a Tigress accompanied his progress. The united horrors of agony, regret, and fear rushed at once upon us. I fired on the Tiger: he seemed agitated. My companions fired also; and in a few moments after this, our unfortunate friend came up to us bathed in blood. Every medical assistance was vain, and he expired in the space of twenty-four hours, having received such deep wounds from the teeth and claws of the animal as rendered his recovery hopeless. A large fire, consisting of ten or twelve whole trees, was blazing near us at the time this accident took place; and ten or more of the natives were with us. The human mind can scarcely form any idea of this scene of horror. We had but just pushed our boat from the shore, when the Tigress made her appearance, almost raging mad, and remained on the sand all the time we continued in sight."



THE PANTHER

Is in shape somewhat like the leopard, with which he has been often confounded by naturalists. His hair is short, sleek, and glossy, and of a bright yellow, beautifully marked with round annular, black spots. He is about the size of a large mastiff dog, with legs not quite so long; his voice is strong and hoarse, and he growls continually. He is fierce, greedy of blood, swift in the chase, and catches his prey by leaping from some lurking place, where he squats himself in the manner and shape of a cat, which he resembles in many points. His tongue, in licking, grates like a file.

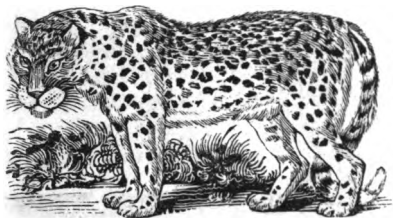
Some years ago, a fine young animal of this species was exhibited in the Tower of London. During its voyage to England, it ran about the decks of the vessel in the most tame and playful manner. It was presented by Admiral Rennier, and a boy (servant to the admiral) carried it to the royal menagerie in a dog kennel. Having taken it to the den in his arms, the youth appeared very unwilling to quit his favourite, and remained a considerable time, kissing the animal, and bidding it adieu in the most tender manner. The Panther also exhibited the strongest marks of attachment; and some time elapsed before the keeper could reconcile it to its new situation.



THE LEOPARD

DIFFERS but little from the panther: his length from nose to tail is about four feet, the colour of the body is a more lively yellow, and the spots of his skin are smaller and closer than those of the panther; they are composed of four or five black dots arranged in a circle, and not imperfectly representing the vestige left by the animal's foot upon the sand.

These quadrupeds are naturally very ferocious, and attack, without distinction, every thing they meet. Kolben informs us, that in the year 1708, two of these animals, a male and female, with three young ones, broke into a sheepfold at the Cape of Good Hope. They killed nearly a hundred sheep, and regaled themselves with the blood; after which, they tore a carcass into three pieces, and gave one of these to each of their offspring; they then took each a whole sheep, and, thus laden, began to retire; but having been observed, they were waylaid on their return, and the female and the young ones were killed, while the male effected his escape.



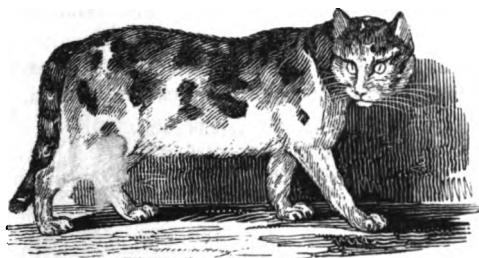
THE OUNCE

Is less than the panther, seldom exceeding three feet and a half in length, very strong, long backed, and short legged, resembling a cat; to which species he belongs. His teeth are so sharp, that he can bite wood asunder with them; and he fights with his claws, which are possessed of very great sharpness and strength. The colour of the upper part of his body is that of whitish oak, the lower part of an ash colour, all over sprinkled with black spots, which are larger, and in form of annulets, round his tail. This species inhabits Barbary, Persia, Hyrcania, and China; is used for the chase of antelopes and hares, and is as much under command as a setting dog; returns at the call, and jumps up behind his master, being carried on the crupper on horseback. This animal, and the two preceding ones, were anciently consecrated to Bacchus, to whose triumphal car they used to be harnessed, in allusion to the effect of wine upon the mind of man, whom intoxication often renders ferocious. The beauty of his skin has made it valuable among furriers.



THE LYNX.

THIS animal is proverbial for his piercing sight : there is no beast existing which is able to discover his prey at so great a distance as the Lynx. He is of the cat kind, and about the size of the ounce. The only striking difference between the Lynx and all those of the panther tribe is in his tail, which is at least half as short in proportion, and black at the extremity ; his ears are erect, with a long pencil of black hair at the tip ; the fur is long and thick ; the upper parts of the body are of a pale gray colour, with a reddish tinge, the under parts white. The fur is extremely valuable. This animal prefers cold to temperate climates ; he pursues his prey even into the highest branches of trees ; neither the wild cat, the martin, the ermine, nor even the squirrel, can escape him ; and such is his native ferocity, that it is considered impossible to tame and subdue him : in a state of captivity, on the slightest irritation or insult, he expresses his anger by a kind of snarling scream. The Lynx of Abruzzo is the most swift, subtle, and audacious beast of prey in Italy ; it hunts chiefly in the night, and as the blood of animals is its most favourite food, it kills large numbers to satisfy this appetite. The wild boar and the roebuck are often destroyed to gratify its desire for blood.



THE CAT

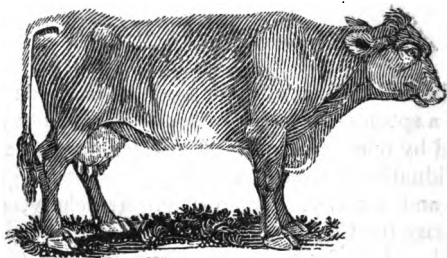
MIGHT be called the domestic tiger or leopard: she looks as a species of those wild beasts, brought to and degraded by domesticity. However tame a Cat may be individually, the race has not yet lost its original habits; and ferocity, cunning, and treachery, still characterize the Cat, even on the comfortable lap, or at the side, of his fond mistress. The domestic Cat is of various colours, from white to black, and the tortoiseshell one is reckoned the handsomest, although males of this description are seldom, if ever, to be found. The Cat is a cleanly, neat, and very useful creature, but can never be cured of its thieving propensity. The tongue is uncommonly rough, and the claws, which are sheathed and brought out as the animal pleases, exceedingly sharp. The Cat lives ten or twelve years, and brings five or six kittens at a litter, which the female educates and constantly drills in all fanciful tricks and useful exercise; far away from her stern and saturnine mate, who would destroy them if they were in his reach.

Mr. White, in his account of Selborne, informs us, among other instances of the same kind, that a boy brought to him three young squirrels which had been taken from their nest. These little creatures he put under a Cat that had recently lost her kittens; and he found that she nursed and suckled them with the same

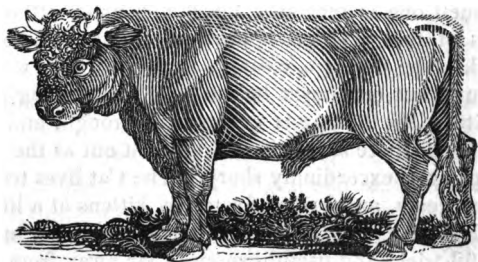
assiduity and affection as if they had been her own progeny.

The author of the "Splendid Shilling" gives us the following description of this domestic animal :

Grimalkin, to domestic vermin sworn
An everlasting foe, with watchful eye
Lies nightly brooding o'er a chinky gap
Protending her fell claws, to thoughtless mice
Sure ruin.



THE COW.



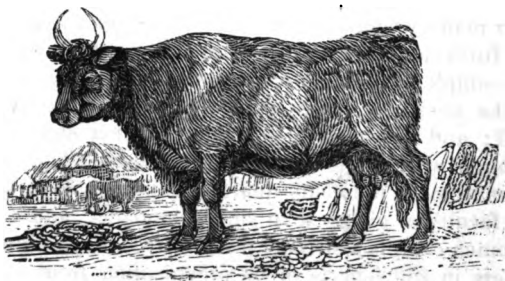
THE BULL.

AMONG the various ruminating animals, those of the Cow kind deserve the first rank, both for their size, their beauty, and their services. We are nourished with their milk, and we are supported with their flesh ; their harmlessness and innocence endear them to us, and claim from us that protection which their natures seem to require ; and in return they supply us with

the necessities and comforts of life. The Cow is the poor man's pride, his wealth, and his support. Nature has furnished these animals with an appetite for coarse and simple nutriment; she has enlarged the capacity of the intestines, so as to take in a great supply of food; and has given them four distinct stomachs, through which it must successively pass. The Cow gives from six to twenty quarts of milk in a day; and the faculty of giving it in such abundance, and with so much ease, is a striking peculiarity, for this animal differs in some parts of its organization from most others, having a larger udder, and longer and thicker teats, than the largest animal we know of; it has likewise four teats, whilst all other animals of the same nature have but two; it also yields the milk freely to the hand, whilst all other animals, at least those that do not ruminate in the same manner, refuse it, unless their young, or some adopted animal, be allowed to partake it. The Cow goes nine months with young, and seldom produces more than one at a time. Her age is known by her horns; at four a ring is formed at their roots, and every succeeding year another ring is added. Thus, by allowing three years before their appearance, and then reckoning the number of rings, the creature's age may be exactly known.

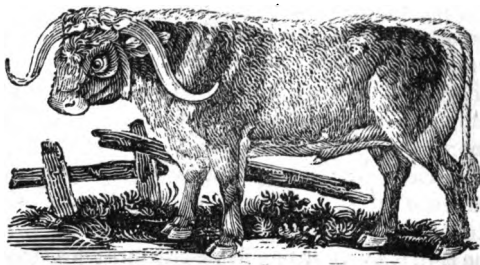
By great industry and attention to their breed, and by judicious mixtures with those of other countries, our horned cattle are universally allowed to be the finest in Europe; although such as are purely British are inferior in size to those of many parts of the continent.

The Bull is a very strong fierce creature; his strength in all his body is very great, but particularly about the head and neck; his forehead seems to be made for fight, having short thick horns, with which he can toss up into the air a large dog and other weighty things: his voice is deep and loud, and, when furious, nothing can stop his devastations.



THE KYLOE.

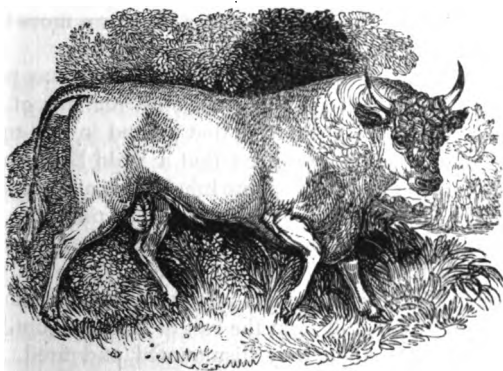
THE Highland cattle, and those bred in the Western Islands, are very small, and partake much of the wildness of the country in which they are bred. They are mostly black, with fine white horns, very sharp, and black at the points; their hair is thick and furry; the milk is of a rich quality. Great numbers are annually brought to England; and, when fat, their beef is much esteemed for its fineness and sweetness.



THE OX.

IN Great Britain the Ox is the only horned animal that will apply his strength to the service of mankind; and, in general, is more profitable than the horse for the plough or the draught. He is gentle and tractable,

and of great strength. There is scarcely any part of this animal without its use: after the labours of his youth are over, we procure an excellent food in his flesh; the skin is made into various kinds of leather; the hair is mixed with lime for plastering rooms; the bones are made use of as a substitute for ivory; and combs, knife-handles, drinking vessels, and many other articles are made of the horns; we are supplied with candles from the tallow; and from the feet is procured an oil, of great use in preparing and softening leather; and the blood, gall, and liver, have their respective uses in manufactures and medicine.



THE WILD BULL.

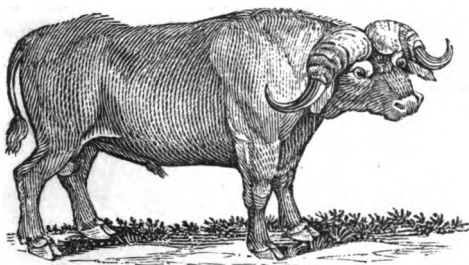
IN Lord Tankerville's park, at Chillingham, in Northumberland, there is a breed of wild cattle, probably the only remains of the true and genuine breed of that species at present found in the kingdom. The colour is invariably white, with muzzle black, and the inside of the ear, with the outside tip, red.

At the first appearance of any person near them, these animals set off at full gallop; and, at the dis-

tance of two or three hundred yards, wheel round and come boldly up again, tossing their heads in a menacing manner. On a sudden they make a full stop at the distance of forty or fifty yards, and look wildly at the object of their surprise; but on the least motion they all turn round, and gallop off again with equal speed, but not to the same distance, forming a smaller circle; and again returning with a bolder and more threatening aspect than before, they approach much nearer, when they make another stand, and again gallop off. This they do several times, shortening their distance, and advancing nearer till they come within a few yards, when most persons consider it prudent to leave them, not choosing to provoke them further, as it is probable that in a few turns more they would make an attack.

The mode of killing these animals, as it was practised a few years ago, was the only remains of the grandeur of ancient hunting that existed in this country. On notice being given that a Wild Bull would be killed on a certain day, the inhabitants of the neighbourhood assembled, sometimes to the number of a hundred horsemen, and four or five hundred foot, all armed with guns or other weapons. Those on foot stood upon the walls, or got into trees, while the horsemen rode off a Bull from the rest of the herd, until he stood at bay, when they dismounted and fired. At some of these huntings twenty or thirty shots have been fired before the animal was subdued. On such occasions the bleeding victim grew desperately furious from the smarting of his wounds, and the shouts of savage joy echoing from every side.

When the Cows calve, they hide their young ones for a week or ten days in some sequestered retreat, and go to suckle them two or three times in a day. If any person comes near one of the calves, it crouches close upon the ground, and endeavours to hide itself, a proof of the native wildness of these animals.



THE BUFFALO,

IN its general form, has a great resemblance to the ox; but it differs from this animal in its horns, and in some particulars of its internal structure. It is larger than the ox; the head is also bigger in proportion, the forehead higher, and the muzzle longer. The horns are large, and of a compressed form, with the exterior edge sharp: they are straight for a considerable length from their base, and then bent slightly upward. The general colour of the animal is blackish, except the forehead and the tip of the tail, which are of a dusky white. The hunch is not, as many have supposed it, a large fleshy lump, but it is occasioned by the bones that form the withers being continued to a greater length than in most other animals. He is a native of most parts of the torrid zone, and almost of all warm climates. In the tropical countries he is perfectly domestic, and most useful for many purposes, being an animal of patience and great strength. When employed in the labours of agriculture, he has a brass ring put through his nose, by which means he is led at pleasure. The Buffaloes are common in Italy, where

they were brought from India in the sixth century. They constitute the riches and food of the poor, who employ them in their fields, and make butter and cheese from their milk. He is much valued for his hide; of which, in several countries, and especially in England, military belts, boots, and other implements of war are made.



THE BISON, OR WILD OX.

Is found chiefly in the northern parts of the world, but is not common there. He is as big as a bull or ox; maned about the back and neck, like a lion; and his hair hanging down under his chin, or nether lip, like a large beard. The fore parts of his body are thick and strong, and the hinder parts are comparatively very slender. He has a rising or little ridge, along his face from his forehead down to his nose, which is very hairy; his horns are large, very sharp, and turning towards his back, like those of a wild goat on the Alps.

**THE HORSE.****THE HUNTER.**

THE noblest conquest that man ever made on the brute creation was the taming of the Horse, and the engaging him to his service. He lessens the labours of man, adds to his pleasures, advances or flees, with ardour and swiftness, for attack or defence; shares, with equal docility and cheerfulness, the fatigues of hunting, the dangers of war, and draws with appropriate strength, rapidity, or grace, the heavy ploughs and carts of the husbandman, the light vehicles of the rich, and the stately carriages of the great. The first specimen is that of a young Cart Horse. The second figure represents the Hunter and Race Horse.

The Horse is bred now in most parts of the world : those of Arabia, Turkey, and Persia are accounted as better proportioned than many others ; but the English Race Horse may justly claim the precedence over all the European breed, and he is not inferior to all the rest in point of strength and beauty.

The beautiful Horses produced in Arabia are in general of a brown colour ; their mane and tail very short, and the hair black and tufted. The Arabs for the most part use the Mares in their ordinary excursions ; experience having taught them that they are less vicious than the male, and are more capable of sustaining abstinence and fatigue. As they have no other residence but a tent, this also serves for a stable, and the husband, the wife, the child, the Mare, and the Foal, lie together indiscriminately ; and the youngest branches of the family may be often seen embracing the neck, or reposing on the body, of the Mare, without any idea of fear or danger.

Of the remarkable attachment which the Arabs have to these animals, St. Pierre has given an affecting instance in his *Studies of Nature*.—"The whole stock of a poor Arabian of the desert consisted of a beautiful Mare : this the French consul at Said offered to purchase, with an intention to send her to Louis XIV. The Arab, pressed by want, hesitated a long time, but at length consented, on condition of receiving a very considerable sum of money, which he named. The consul wrote to France for permission to close the bargain ; and, having obtained it, sent the information to the Arab. The man, so indigent as to possess only a miserable covering for his body, arrived with his magnificent courser : he dismounted, and first looking at the gold, then steadfastly at his Mare, heaved a sigh. 'To whom is it,' exclaimed he, 'that I am going to yield thee up? To Europeans ! who will tie thee close, who will beat thee, who will render thee miserable ! Return with me, my beauty, my jewel ! and rejoice

the hearts of my children :’ as he pronounced the last words, he sprung upon her back, and was out of sight almost in a moment.”

The intelligence of the Horse is next to that of the elephant, and he obeys his rider with so much punctuality and understanding that the Americans, who had never seen a man on horseback, thought, at first, that the Spaniards were a kind of centaurs, a monstrous race, half men and half horses. The Horse, in a domestic state, seldom lives longer than twenty years ; but we may suppose, in a wild state, he might attain double this age ; and it is melancholy to think that our bad treatment has shortened the days of so useful a creature. The Mare, his female, is as elegant in her shape. She goes eleven months, and seldom foals double. From the teeth of the Horse his age is known, and his colour, which varies considerably from black to white, from the darkest brown to a light hazel tint, has been reckoned a good sign to judge of his strength and other qualities.

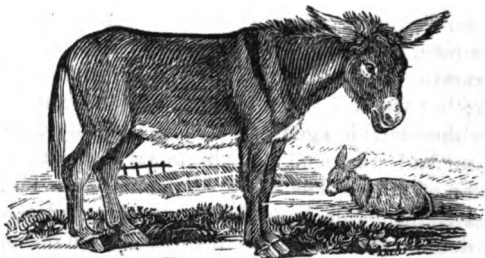
The Horse feeds upon grass, either fresh or dry, and corn ; he is liable to many diseases, and often comes suddenly to his end. In the state of nature, he is a gregarious animal, and even in domesticity, his debased situation of slavery has not entirely erased his love of society and friendship ; for horses have been known to pine at the loss of their masters, their stable fellows, and even at the death of a dog which had been bred near the manger. Virgil, in his beautiful description of this noble animal, seems to have imitated Job :

“ The fiery courser, when he hears from far
The sprightly trumpets, and the shouts of war,
Pricks up his ears, and trembling with delight,
Shifts place, and paws, and hopes the promised fight.
On his right shoulder his thick mane reclined,
Ruffles at speed, and dances in the wind.

A DESCRIPTION OF

His horny hoofs are jetty black and round,
His chine is double ; starting with a bound,
He turns the turf and shakes the solid ground.
Fire from his eyes, clouds from his nostrils flow ;
He bears his rider headlong on the foe.

DRYDEN, GEOR. III.



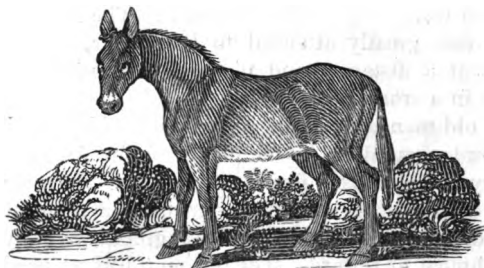
THE ASS

Is a beast of burden, undoubtedly very serviceable to mankind. Of greater strength comparatively than most animals of his size, he bears fatigue with patience, and hunger with apparent cheerfulness. A bundle of dried herbs, a thistle on the road, will suffice him for his daily meal, and he compensates with the clear and pure water of a neighbouring brook (on the choice of which he is particularly nice), the want of a better fare. Our treatment of this very useful animal is both wanton and cruel, and most ungrateful, considering the great services he renders us at a little expense. His ears, which are of an uncommon length, are generally mutilated, and he is thus deprived by man of that which nature had intended for ornament and use. He is generally of a dun colour, and wears the form of a cross on his back and shoulders. When very young, the Ass is sprightly, and even tolerably handsome ; but he soon loses these qualifications,

either by age or ill treatment, and becomes slow, stupid, and headstrong. The female is passionately fond of her young; and it is said she will even cross fire and water to protect or rejoin it. The Ass is also sometimes greatly attached to his owner, whom he scents at a distance, and plainly distinguishes from others in a crowd.

An old man who, a few years ago, sold vegetables in London, used in his employment an Ass, which conveyed his baskets from door to door. Frequently he gave the poor industrious creature a handful of hay, or some pieces of bread, or greens, by way of refreshment or reward. The old man had no need of any goad for the animal, and seldom, indeed, had he to lift up his hand to drive it on. His kind treatment was one day remarked to him, and he was asked if his beast was apt to be stubborn? "Ah! master," replied he, "it is of no use to be cruel, and as for stubbornness I cannot complain; for he is ready to do any thing, and go any where. I bred him myself. He is sometimes skittish and playful, and once ran away from me; you will hardly believe it, but there were more than fifty people after him, attempting in vain to stop him; yet he turned back of himself, and he never stopped till he ran his head kindly into my bosom."

The ancients had a great regard for this animal. Jacob, in his prophecy, compares his son *Issachar*, and Homer the great *Ajax*, to an Ass. The Romans had a breed which they held in such high estimation, that Pliny mentions one of the stallions selling for a price greater than three thousand pounds of our money; and he says that in Celtiberia, a province in Spain, a she Ass had colts that were bought for nearly the same sum. The Ass lives nearly to the same age as the horse; and his female's milk has often proved a good remedy against consumptions.



THE MULE.

THIS useful and hardy animal is the offspring of the Horse and the Ass, and being generally barren, furnishes an indisputable proof that the two species are perfectly distinct. The common Mule is very healthy, and will live above thirty years. It is found very serviceable in carrying burdens, particularly in mountainous and stony places, where horses are not so sure footed. The size and strength of our breed have been much improved by the importation of Spanish male Asses; and it is much to be wished that the useful qualities of this animal were more attended to; for, by proper care in its breaking, its natural obstinacy would in a great measure be corrected; and it might be formed with success for the saddle, the draught, or the burden. It is much less dainty in its food than the horse, and not so liable to disease; and it has been known to go a distance of eighty or one hundred miles in one day, with a heavy weight on its back, without much fatigue.

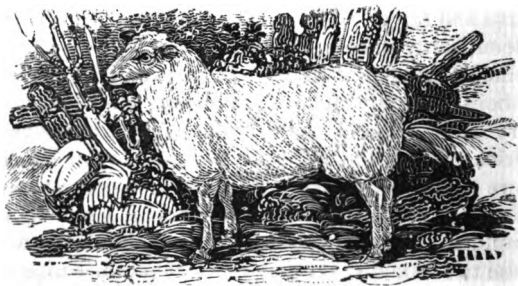
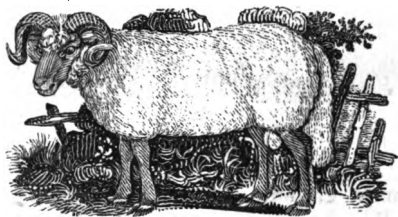


THE ZEBRA

Is the most elegant quadruped in nature. He is striped all over with the most pleasing regularity ; in form he resembles the mule, being smaller than the horse and larger than the ass. The hair of his skin is uncommonly smooth, and he looks at a distance as an animal that some fanciful hand has surrounded with ribbons of pure white and jet black. He is, however, very ferocious and untractable, and is a native of Africa. Were the Zebra accustomed to our climate, there is little doubt but he might be soon domesticated. The black cross, which the ass bears on his back and shoulders, seems to prove an ancient affinity between these two animals, yet they refuse to produce together, and nature seems to have drawn between them an impassable line of demarcation. The Zebra feeds in the same manner as the horse, ass, and mule ; and seems to delight in having clean straw and dried leaves to sleep upon. His voice can hardly be described ; it is thought by some persons to have a distant resemblance to the sound of a post horn. It is more frequently exerted when the animal is alone than at other times. In former times Zebras were often sent as presents to

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the oriental princes. A governor of Batavia is said to have given one to the emperor of Japan, for which he received, as an equivalent for the company, a present to the value of sixty thousand crowns; and Teller informs us that the Great Mogul gave two thousand ducats for one of these animals.



THE SHEEP

Is universally known, its flesh being one of the chief of human food. Its wool is of great use for clothing. Although of a moderate size, and well covered, it does not live more than nine or ten years. The Ram is strong and fierce, and will boldly attack a dog, and often comes off victorious: he has even been known,

regardless of danger, to engage a bull ; and, his forehead being much harder than that of any other animal, he seldom fails to conquer ; for the bull, by lowering his head, receives the stroke of the Ram between his eyes, which usually brings him to the ground. The Ewe goes with young about twenty weeks, and the Lamb has always been an emblem of innocence.

This animal is one of the most useful that nature ever submitted to the empire of man ; and in patriarchal life, the number of Sheep constituted the riches of kings and princes.

In its domestic state, it is too well known to require a detail of its peculiar habits, or of the methods which have been adopted to improve the breed. No country produces finer Sheep than England, either with larger fleeces, or better adapted for the business of clothing. Those of Spain are confessedly finer, and we generally require some of their wool to work up with our own ; but the weight of a Spanish fleece is much inferior to one of Lincoln or Tees Water. Merino, or Spanish Sheep, have of late years been introduced with great success into our English pastures, and the wool of this growth is esteemed as much as the wool brought from Spain. The late king gave great assistance to the introduction of this breed. In stormy weather, these animals generally hide themselves in caves from the fury of the elements ; but if such retreats are not to be found, they collect themselves together, during the fall of snow, and place their heads near each other, with their muzzles inclined to the ground. In this situation they sometimes remain, till hunger compels them to gnaw each other's wool, which forms into hard balls in the stomach, and destroys them. But, in general, they are sought out and extricated soon after the storm has subsided.



THE MOUFFLON, OR ARGALI,

IN figure somewhat resembles a ram, but his wool is rather like the hair of a goat. His horns are large and bent backwards, and his tail is short. He is of the size of a small deer, active, swift, wild, and found in flocks in the rocky, dry deserts of Asia, Kamtschatka, Barbary, and Corsica. His flesh and fat are delicious. He is called also the Siberian Sheep or Goat, and is considered by many as the parent stock of the domestic sheep.



THE WALLACHIAN RAM.

THE singular conformation of the horns, which adorn the head of this breed of foreign Sheep, has induced us to insert a figure of the animal in this work. The

late Mr. Collinson, a Fellow of the Royal Society in London, sent a drawing of the Ram, and one of the Ewe, to the Count de Buffon, who had them engraved in his first volume of quadrupeds. The horns of the Ewe are twisted also, but not so much as those of the Ram, which describe, near the head, a spiral line. The wool of this species seems to be much longer than that of the common Sheep, and to resemble the hair of the goat. Buffon regrets that the death of his friend, Mr. Collinson, had deprived him of a more particular description of this curious animal, which is sometimes called *Strepsiceros*, from the shape of his horns.



THE GOAT,

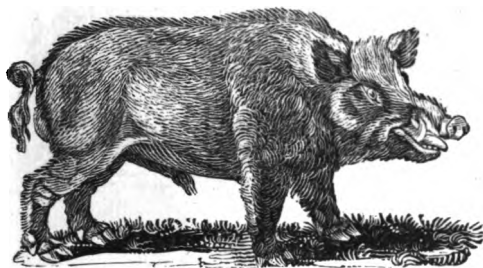
AFTER the cow and the sheep, has been always reckoned, and mostly in ancient and patriarchal times, the most useful domestic animal; its milk is sweet, nourishing, and medicinal, and better adapted for persons of weak digestion than that of the cow, as it is not so apt to curdle on the stomach. The female generally produces two or three young at a time; but in warm climates she is more prolific. This animal is better adapted for savage life than the sheep; it delights in climbing precipices, and is often seen reposing in peaceful security on rocks overhanging

the sea. Nature, indeed, has in some measure fitted it for traversing these eminences; the hoof being hollow underneath, with sharp edges, so that it could walk as securely on the ridge of a house as on level ground. The Goat is sober and mild; the kid's flesh was once esteemed a very delicate food, and even now feeds an immense quantity of people in the Alps, the Pyrenees, and in Wales.



THE IBEX

Is a Wild Goat, which inhabits the Pyrenean mountains, the Alps, and the highest mountains of Greece. He is of an admirable swiftness, although his head is armed with two long, knotted horns, inclining backwards; his hair is rough, and of a deep brown colour. The male only has a beard, and the female is less than the male: this animal skips from rock to rock, and often, when pursued, jumps down enormous precipices, and falls on his horns in such a manner as to remain unhurt from the fall.



THE WILD BOAR

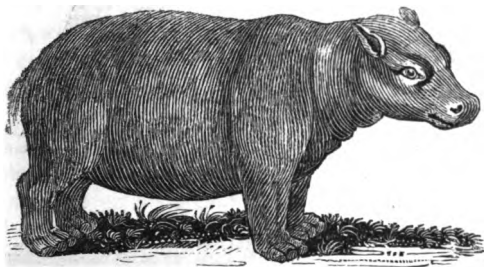
INHABITS, for the most part, marshes and woods, and is of a black or brown colour; his flesh is very tender, and good for food. The Wild Boar is the original of the hog kind, but more sagacious and cleanly; his tusks are sometimes near a foot in length, and they have often proved dangerous to men as well as to dogs in the chase. His life is confined to about thirty years; his food consists of vegetables, but when pressed by hunger, he devours animal flesh. This creature is strong and fierce, and undauntedly turns against his pursuers. To hunt him is one of the principal amusements of the grandees in those countries where he is to be found.

In former times the Wild Boar was a native of Britain, as appears from the laws of the Welsh prince, Howell the Good, who permitted his grand huntsman to chase that animal from the middle of November to the beginning of December; and in the reign of William the Conqueror, those who were convicted of killing the Wild Boars, in any of the royal forests, were punished with the loss of their eyes. The tame Boar has two tusks, but much less than those of the wild one; the Sow has none.



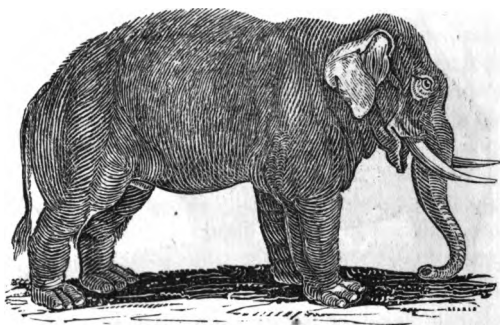
THE RHINOCEROS,

So called because of the horn on his nose, is bred in India and Africa; he is of a dark slate colour, and is inferior to no one but the elephant; he measures about twelve feet in length, but has short legs. His skin, which is not penetrable by any weapon, is folded upon his body in the manner represented in the figure above; his eyes are small and half closed, and the horn on his nose is so sharp, and of so hard a nature, that it is said to pierce through iron and stone. He is perfectly indocile and untractable; a natural enemy to the elephant, to whom he often gives battle, and is said never to go out of his way, but that he will rather stop to destroy the obstacles which offer to retard his course, than to turn about; he lives on the grossest vegetables, and frequents the banks of rivers and marshy grounds; his hoofs are divided into four claws, and it is reported that he grunts like a hog, which he resembles in many points as to shape and habits. The female produces but one at a time, and during the first month, her young are not bigger than a large dog. The Rhinoceros is supposed to be the Unicorn of holy writ, and possesses all the properties ascribed to that animal, — rage, untamableness, great swiftness, and immense strength. It was known to the Romans in very early times. Augustus introduced one into the shows, on his triumph over Cleopatra.



THE HIPPOPOTAMUS, OR RIVER-HORSE,

LIVES as well on land as in water, and yields in size to none but the elephant; he weighs sometimes between fifteen and sixteen hundred pounds. His skin is very sleek, and covered with short and soft hair, of a mouse colour. The head is flattish on the top, the lips are large, the mouth wide, and armed with strong teeth; he has broad ears and eyes, a thick neck, and a short tail, tapering like that of a hog. He grazes on shore, but retires to the water if pursued, and will sink down to the bottom, where he walks as on dry ground. He often rises to the surface and remains with his head out of the water, making a bellowing noise which may be heard at a great distance. The female brings forth her young upon land, and it is supposed that she seldom produces more than one at a time. The calf, at the instant when it comes into the world, will fly to the water for shelter, if pursued; a circumstance which has been noticed as a remarkable instance of pure instinct. He is supposed to be the Behemoth of the Scripture. See Job, chap. xl.



THE ELEPHANT

Is considered the most intellectual animal in the creation after man. It has been supposed that in ancient times they lived nearer the poles than they now do ; but, however, they are, at this time, confined nearly to the torrid zone. Providence, always impartial in the distribution of his gifts, has given this bulky quadruped a quick instinct nearly approaching to reason, in compensation for the uncouthness and ill shapedness of his body. The Ceylon Elephant, the largest of all, is about thirteen feet high, and seven broad, and is much the largest of all animals. His skin is in general a mouse colour, but it is sometimes white and sometimes black. His eyes are rather small for the size of his head, and his ears, which are very expanded and of a peculiar shape, have the concha hanging down, instead of standing up, as in most quadrupeds. The Elephant is a gregarious animal in his wild state, and in domesticity is susceptible of attachment and gratitude, as well as of anger and revenge. Several anecdotes are related of his quick apprehension, and chiefly of the vindictive treatment he uses against those who have either scoffed at or abused him. To disappoint him is dangerous, as he seldom fails to be revenged.

The following instance is given as a fact, and deserves to be recorded:—An Elephant, disappointed of his reward, out of revenge, killed his governor. The poor man's wife, who beheld the dreadful scene, took her two infants and threw them at the feet of the enraged animal, saying, "Since you have slain my husband, take my life also, as well as those of my children!" The Elephant instantly stopped, relented, and, as if stung with remorse, took the eldest boy in its trunk, placed him on its neck, adopted him for its governor, and would never allow any other person to mount it.

His mouth is armed with broad and strong grinding teeth, and two large tusks, which measure sometimes nine or ten feet. From these tusks, all that ivory can ever produce of fine and exquisite workmanship is made. The ivory from the tusks of the female is thought the best, as the tooth, being smaller, admits less porosity in the cellular part of the mass.

Becoming tame under the mild treatment of a good master, the Elephant is not only a most useful servant, for the purposes of state or war, but is also of great help in taming the wild ones that have been recently caught. The Hindostan superstition has paid great honours to the white race of this quadruped; and the island of Ceylon is supposed to breed the finest of the kind. This immense beast, by the wisdom, of Providence, has not been placed among the carnivorous animals: vegetable food being much more abundant than animal, he is destined to live on grass and tender sprouts of all sorts. This noble creature bears in state on his back the potentates of the East, and seems to delight in the pompous pageantry of Hindostan: in war, he carries a tower filled with archers; and, in a state of domesticity, lends his assistance to all who require it. The female is said to go a year with young; and to bring forth one at a time. The Elephant lives a hundred and twenty or a hundred and thirty years.

The greatest wonder the Elephant presents to the admiration of the intelligent observer of nature is his *proboscis*, or trunk, composed of elastic rings to the extent of six or eight feet, and so flexible that he uses it as dexterously as a man does his hand. It was erroneously said, that the Elephant could receive nourishment through his trunk; this sort of pipe is nothing but a prolongation to the snout, for the purpose of breathing, into which the animal can, by the strength of his lungs, draw up a great quantity of water or other liquid, which he spouts again, or brings back to his mouth by inverting and shortening his proboscis for this purpose. It would be exceeding the rules we have adopted in the compilation of this book, to say more upon a creature that has been so often and so well described by other naturalists.



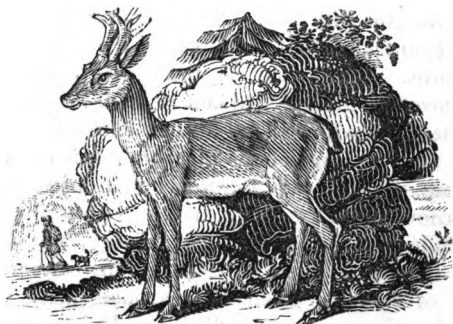
THE STAG

Is generally famed for long life, but upon no certain authority. The naturalists agree, however, upon this point, that his life may exceed forty years: but, that his existence, as it has been asserted, reaches to three

centuries, has but little claim to our belief. He comes to his full growth at five, soon after which his horns, which are yearly shed and renewed, grow from a narrower basis, and are less branching. He is the tallest of the Deer kind. The Stag is called Hart after he has completed his fifth year. This creature is known in many countries; the female, called the Hind, is without horns. Every year, in the month of April, the male loses his antlers, and conscious of his temporary weakness, hides himself till his new ones are hardened. Little need be said of the pleasure taken in hunting the Stag, the Hart, and the Roebuck, it being a matter well known in this country, and in all parts of Europe. The following fact, recorded in history, will serve to show that the Stag is possessed of an extraordinary share of courage, when his personal safety is concerned:—Some years ago, William, Duke of Cumberland, caused a tiger and a Stag to be enclosed in the same area; and the Stag made so bold a defence, that the tiger was at length obliged to give up. His flesh is accounted an excellent food; and even his horns, so useful to cutlers, when reduced to shavings, are much esteemed in physic under the common name of *harts-horn*. The swiftness of the Stag is become proverbial, and the diversion of hunting this creature has, for ages, been looked upon as a royal amusement. In the times of William Rufus and Henry the First, it was less criminal to destroy one of the human species than a beast of the chase. This animal, when fatigued in the chase, often throws himself in a pond of water, or crosses a river, and, when caught, he sheds tears like a child. Our great Bard, Shakspeare, gives us a beautiful description of this circumstance in “As You Like It,” Act II. Scene I.

“To the which place a poor sequestered Stag,
That from the hunter’s aim had ta’en a hurt,
Did come to languish; and indeed, my lord,

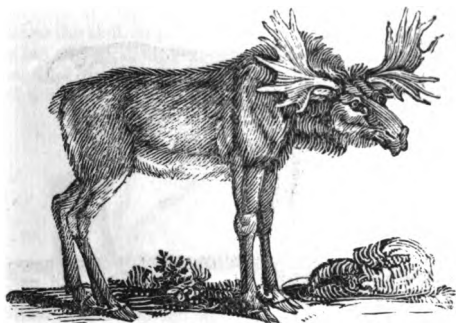
The wretched animal heaved forth such groans
That their discharge did stretch his leathern coat
Almost to bursting; and the big round tears
Coursed one another down his innocent nose
In piteous chase."



THE ROEBUCK

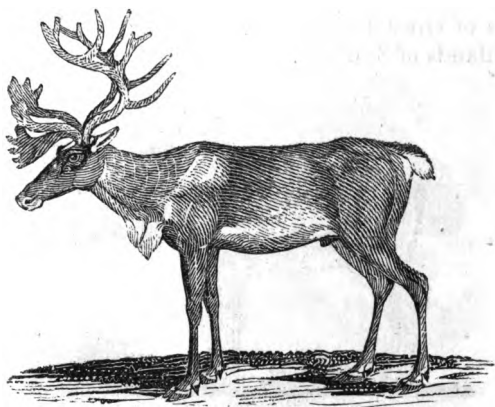
Is one of the least of the Deer kind known in these climates, being not above three feet in length, and two in height. His horns are about nine inches long, round, and divided into three small branches. His colour is of a brown shade on the back, his face partly black, and partly ash colour, the chest and belly yellow, and the rump white; his tail is short. The Roebuck is more graceful than the stag, more active, more cunning, and comparatively swifter; his flesh is much esteemed, and his age does not exceed fifteen years. He is very delicate in the choice of his food, and requires a larger tract of country, suited to the wildness of his nature, which can never be thoroughly subdued. No arts can teach him to be familiar with his keeper, nor in any degree attached to him. These animals are easily terrified; and in their attempts to escape, will run with such force against the walls of their enclosure, as sometimes to disable themselves:

they are also subject to capricious fits of fierceness ; and, on these occasions, will strike furiously with their horns and feet at the object of their dislike. The only parts of Great Britain where they are found are the Highlands of Scotland.



THE ELK

Is the largest and most formidable of all the Deer kind. His horns spread into large broad palms, and he has an excrescence under the throat, the use of which has not yet been explained. He lives in forests, upon branches and sprouts of trees, and is an inhabitant of Europe, Asia, and America ; in the last named country he is known by the name of Moose-Deer. The pace of the Elk is a high, shambling trot, but it goes with great swiftness. Formerly these animals were made use of in Sweden to draw sledges, but their swiftness gave criminals such means of escape, that this use of them was prohibited under great penalties. The Elk is timid and inoffensive, except when wounded, and then he will strike with both horns and hoofs, and he possesses such agility and strength of limbs, that, with a single blow of the fore foot, he will kill a wolf or a dog. The female is less than the male, and has no horns.



THE REINDEER

Is found in most of the northern regions of Europe, Asia, and America. Its general height is about four feet and a half. The colour is brown above and white beneath; but as the animal advances in age, it often becomes of a grayish white. The hoofs are long, large, and black. Both sexes are furnished with horns, but those of the male are much the largest. To the Laplander this animal is the substitute for the horse, the cow, the goat, and the sheep; and is their only wealth. The milk affords them cheese; the flesh, food; the skin, clothing; of the tendons they make bowstrings, and, when split, thread; of the horns, glue; and of the bones, spoons. During the winter the Reindeer supplies the want of a horse, and draws sledges with amazing swiftness over the frozen lakes and rivers, or over the snow which at that time covers the whole country. Innumerable are the uses, the comforts, and advantages, which the poor inhabitants of this dreary

climate derive from this animal. We cannot sum them up better than in the beautiful language of the poet:—

Their Reindeer form their riches. These their tents,
Their robes, their beds, and all their homely wealth
Supply, their wholesome fare, and cheerful cups:
Obsequious at their call, the docile tribe
Yield to the sled their necks, and whirl them swift
O'er hill and dale, heap'd into one expanse
Of marbled snow, as far as eye can sweep,
With a blue crust of ice unbounded glazed.



THE ANTELOPE

Is between the goat and the deer kind. Swift and elegance of shape this animal possesses to a considerable degree, and inhabits the temperate zone of Asia and Africa. He has horns like the goat, and never sheds them; these horns are smooth, long, and twisted spirally or annulated. The general colour of the hair is brown, and, in some species, of a beautiful yellow. Timid animals are of course inoffensive, and the Antelopes, like other gregarious creatures, are fond of living together. The eyes are exceedingly bright; and to them those of a beautiful nymph have often been com-

pared by Persian and other poets. Enjoying an unbounded share of liberty, they range in herds, through the deserts of Africa, and bound from rock to rock with wonderful agility.



THE NYL GHAW

Is an inhabitant of India, and seems of a middle nature between the cow and the deer kind; in his body, horns, and tail he resembles the former, but the head, neck, and legs bear similarity to those of the latter. In the wild state these animals are said to be ferocious, but they may be domesticated, and in that condition give frequent tokens of familiarity, and even of gratitude, to those under whose care they are placed. The female, or doe, is much smaller than the male, and is of a yellowish colour, by which she is easily distinguished from the buck, who is of a gray tint.

Its manner of fighting is very particular, and is thus described:—Two of the males, at Lord Clive's, being put into an enclosure, were observed, while they were at some distance from each other, to prepare for the attack, by falling down upon their knees: they then shuffled towards each other, still keeping upon their

knees ; and, at the distance of a few yards, they made a spring, and darted against each other with great force.

The following anecdote will serve to show that during the rutting season these animals are fierce and vicious, and not to be depended upon :—A labouring man, without knowing that the animal was near him, went up to the outside of the enclosure : the Nyl Ghaw, with the quickness of lightning, darted against the wood-work with such violence, that he dashed it to pieces, and broke one of his horns close to the root. The death of the animal, soon after, was supposed to be owing to the injury he sustained by the blow.



THE AXIS,

A VERY beautiful species of the deer, found in Africa and the East Indies, of a light red colour, though some of the kind are of a deeper red. He is about the size of a fallow deer, and often variegated with beautiful spots of bright white. The horns are slender and triple forked. The Axis is a native of Ceylon and Borneo, a timid and harmless creature, more ornamental to the landscape, where it skips and plays in a wild state, than useful to man.



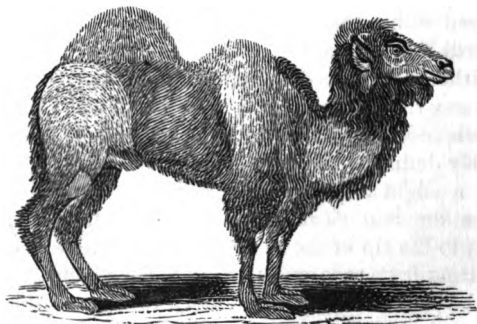
THE CAMELOPARD, OR GIRAFFA.

HERE Nature seems to have forgotten her general rules of symmetry, in giving to this extraordinary quadruped a small head with a large body, and fore legs much longer than the hinder ones, without letting us into the secret of her reasons for composing such a shape. This curious animal is found in the remotest part of Africa. His head, which resembles that of a horse, is armed with two small horns, blunt, and of an iron colour; the hair is whitish, mixed with tawny, and sprinkled with numerous rusty spots. He feeds on vegetables and branches of trees; and, in order to reach the ground, he is obliged to spread his fore feet very wide. His timidity is equal to his strength, and an animal, that might fight a bull, may be led by a child with a small line or cord about his neck. It is

said that the flesh of this animal is a pleasing and wholesome food.

A present of one of these rare animals, to the King of England, has lately arrived from the Pasha of Egypt. It differs in many respects from the Camelopards described by Vaillant. This specimen has two short protuberances or tufts between the ears, which are covered with rather long hair, falling over on the top, towards the back of the neck, not terminating in nobs as hitherto described. Neither does this Giraffa display any rise on its back, over its shoulders, nor along the whole line of the vertebra, as is seen in those previously delineated. It assumes almost a straight line, with a slight appearance of curve. Its height is between ten and eleven feet, measured from the fore hoofs to the tip of the ears. The general tone of colour is a light fawn, the spots being a few shades deeper. As the animal is, however, only two years old, it is expected that these spots will become darker as he increases in age. The eyes are large, dark, and expressive: they, as well as the ears, move quickly. He is timid, and readily alarmed with any noise; but when his keepers are present, he displays much more confidence. He does not at present possess much strength; the joints of the fore legs are very large, similar to those of a young calf, and he moves with an unsteady step. His legs, when viewed in front, are not perpendicular, but diverge from the body, and spread out, as if intended by nature to poise and support his immense height, when standing. That which shows that the Giraffa was intended to browse on the high branches of trees, is the difficulty which it manifests whenever it is obliged to take any thing from the ground. It puts out first one foot, then the other; repeats the same process several times; and it is only after these reiterated experiments that it at length bends its neck, and applies its lips and tongue to the

object in question. It willingly accepts fruit and branches of the acacia when offered to it. It seizes the foliage in a very singular manner, thrusting forth, for the purpose, a long, reddish, and very narrow tongue, which it rolls round whatever it would secure.



THE CAMEL.

In silent horror, o'er the boundless waste,
The driver Hassan with his Camels pass'd:
One cruise of water on his back he bore,
And his light scrip contain'd a scanty store:
A fan of painted feathers in his hand,
To guard his shaded face from scorching sand;
The sultry sun had gain'd the middle sky,
And not a tree, and not a herb, was nigh:
The beasts, with pain, their dusty way pursue,
Shrill roar'd the winds, and dreary was the view!

COLLINS.

THE Camel is a native of Asia, and is generally of a brown or ash colour. His height is about six feet. He is one of the most useful quadrupeds in oriental countries; his docility and strength, his sobriety and swiftness, on the sands of Arabia, make him a most valuable acquisition to the inhabitants of those desert places. The principal characteristics of the Camel are these:

He carries two large and hard bunches on his back ; is destitute of horns ; has six cutting teeth in the lower jaw, and none in the upper ; the upper lip divided like those of the hare ; and the hoofs small and undeciduous. But the peculiar and distinguishing characteristic of the Camel is, its faculty of abstaining from water for a greater length of time than any other animal ; for which nature has made a wonderful provision, in giving it, besides the four stomachs which it has in common with all ruminating animals, a fifth bag, serving as a reservoir for water, where it remains without corrupting or mixing with the other aliments. By this singular structure it can take a prodigious quantity of water at one draught, and is enabled to pass as much as fifteen days without drinking again. A large Camel is capable of carrying a thousand, and sometimes twelve hundred weight. This animal, like the elephant, is tame, tractable, and strong : like the horse, he gives security to his rider ; and, like the cow, he furnishes his owner with meat for his table, and milk for his drink. The flesh of the young Camel is esteemed a delicacy, and the milk of the females, diluted with water, is the common drink of the Arabians. Their hair or fleece, which falls off entirely in the spring, is superior to that of any other domestic animal, and is made into very fine stuffs, for clothes, coverings, tents, and other furniture. The female goes one year with young, and produces but one at a time. The Camel kneels to receive his burden, and it is said that he refuses to rise, if his master impose upon him a weight above his strength. Long inured to slavery, the result of domesticity, he wears on his knees the stigma of servitude, and sleeps promiscuously with the Arab, his wife and children, under the tent, in the parched and extensive sands of the Levant.



THE DROMEDARY,

AN animal of the Camel kind, of less stature, but much swifter, having but one hard bunch on his back ; is domesticated throughout Africa, as well as Asia. He is covered with soft, short hair, except on the head, throat, and top of the neck, where it is longer. His upper lip is divided like that of the camel, and his feet are terminated by two sharp claws. The Camel and Dromedary produce with each other, and the race resulting from their union is reckoned the most valuable, adding the swiftness of the one to the greater strength of the other. It is said that this kind can travel one hundred miles a day, and carry fifteen hundred weight. Attempts have been made to introduce the Camel and Dromedary into our West India Islands, but they have not succeeded. The Dromedary is usually called the Arabian, or single-hunched Camel.



THE LAMA, OR CAMEL OF AMERICA,

Is a mild, timorous creature, not above four feet and a half in height, and usually of a brown colour. It bears in form a general resemblance to the camel; but, instead of a protuberance on the back, it has one on the breast. They are used as beasts of burden by the South Americans, and are so capriciously vindictive, that, if their drivers strike them, they immediately squat down, and nothing but caresses can humour them to rise again. They have been known to kill themselves by striking their heads against the ground in their rage, when by blows they have been urged forward against their will. They express their anger by spitting at their adversary a strong acid liquid, that inflames the skin. The *Pacoes* are much smaller than the Lama, and of different colours in a domestic state. They are used for the same purposes, and differ little in habits and nature. The wool of both these animals is made use of for several purposes, and is a principal ingredient in the composition of hats, in several parts of the new and old continent.

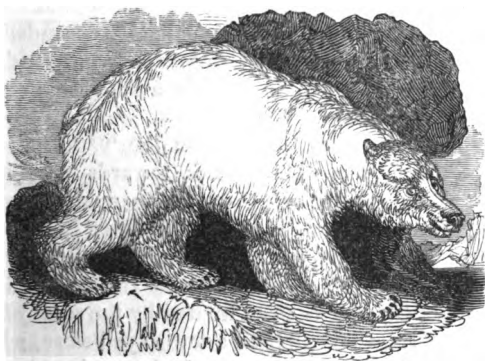
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THE BEAR

Is a well known quadruped ; the two principal varieties are the brown and the black : he makes use of his tusks in seizing his prey, but embraces it with his paws and squeezes it to death against his breast. The Bear is found in several parts of the world : some of them live upon acorns, herbaceous food, and on honey ; some others on fish, flesh, and even carrion. The brown Bear of the Alps and Switzerland, though ill shaped and uncouth, is often dragged along our streets, and made an amusing show to the gazing multitude. We have, however, to congratulate mankind, that the stern and ferocious entertainment of Bear baiting is entirely gone out of fashion. The Bear is a great sleeper, and passes the whole winter in his den without any particular food ; but if we consider his being at rest, losing little by perspiration, and never retiring before he is properly fattened, his abstinence will cease to be so wonderful. When tamed, this animal appears mild and obedient to his master ; it may be taught to walk upright, to dance, to lay hold of a pole with its paws, and perform various tricks to entertain the multitude, who are highly pleased to see the awkward measures of this rugged creature, which it seems to suit to the sound of an instrument, or to the voice of its leader. But to give the Bear this kind of educa-

tion, it must be taken when young, and accustomed early to restraint and discipline: an old Bear will suffer neither, without discovering the most furious resentment: neither the voice nor the menaces of his keeper have any effect upon him; he equally growls at the hand that is held out to feed, as at that which is raised to correct him. The American Bear is of a glossy black. The female Bears bring forth two or three young, and are very jealous of their offspring. This animal has given name to two of the most conspicuous constellations near the northern pole, from the fable of Calisto, a nymph of Diana, who was seduced by Jupiter. The fat of the Bear is reckoned very useful in rheumatic complaints, and for anointing the hair; his fur affords comfort to the inhabitants of cold countries, and ornaments to those of milder climates.



THE POLAR, OR GREAT WHITE BEAR,

DIFFERS greatly from the common Bear in the length of its head and neck, and grows to above twice the size. Some of them are thirteen feet long. Its limbs

are of great size and strength; its hair long, harsh, and disagreeable to the touch, and of a yellowish white colour; its ears are short and round, and its teeth large. It inhabits only the coldest parts of the globe, and has been found above latitude eighty, as far as navigators have penetrated northward.

The ferocity of the Bear is as remarkable as its attachment to its young. A few years since, the crew of a boat belonging to a ship in the whale fishery, shot at a Bear at a short distance and wounded it. The animal immediately set up the most dreadful yells, and ran along the ice towards the boat. Before it reached it, a second shot was fired and hit it. This served to increase its fury. It presently swam to the boat; and in attempting to get on board, reached its fore foot upon the gunnel; but one of the crew having a hatchet, cut it off. The animal still, however, continued to swim after them till they arrived at the ship; and several shots were fired at it, which also took effect: but on reaching the ship, it immediately ascended the deck; and the crew having fled into the shrouds, it was pursuing them thither, when a shot from one of them laid it dead on the deck.

The following is extracted from the "Journal of a Voyage for making Discoveries towards the North Pole:"—Early in the morning, the man at the mast-head of the Carcase gave notice that three Bears were making their way very fast over the ice, and that they were directing their course towards the ship. They had, without question, been invited by the scent of the blubber of a seahorse, killed a few days before, which the men had set on fire, and which was burning on the ice at the time of their approach. They proved to be a she Bear and her two cubs; but the cubs were nearly as large as the dam. They ran eagerly to the fire and drew out from the flames part of the flesh of the seahorse that, remained unconsumed, and ate it

voraciously. The crew from the ship threw great lumps of the flesh of the seahorse, which they had still left, upon the ice. These the old Bear fetched away singly, laid every lump before her cubs as she brought it, and dividing it, gave each a share, reserving but a small portion to herself. As she was fetching away the last piece, they levelled their muskets at the cubs, and shot them both dead; and in her retreat, they wounded the dam, but not mortally. It would have drawn tears of pity from any but unfeeling minds to mark the affectionate concern expressed by this poor beast in the last moments of her expiring young. Though she was sorely wounded, and crawling to the place where they lay, she carried the lump of flesh which she had fetched away, and laid it, as she had done the others, before them. When she saw that they refused to eat, she laid her paws first upon one and then upon the other, and endeavoured to raise them up. It was pitiful to hear her moan. When she found she could not stir them, she went off. When she had gotten to some distance, she looked back and moaned. When she found that she could not entice them away, she returned, and smelling round them, began to lick their wounds. She went off a second time as before: and having crawled a few paces, looked again behind her, and for some time stood moaning. But still her cubs not rising to follow her, she returned to them again, and with signs of inexpressible fondness, went round one and round the other, pawing them and moaning. Finding at last that they were cold and lifeless, she raised her head towards the ship and growled at the murderers, who then shot her with a volley of musket balls. She fell between her cubs, and died licking their wounds.



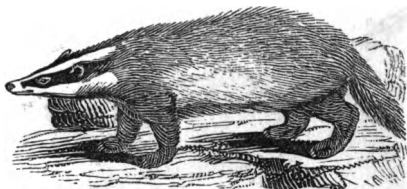
THE RACCOON

Is a native of America, of the Bear tribe; in Jamaica they are very numerous, and do incredible mischief to the sugar-cane plantations. The Raccoon is less than the fox in size, and has a sharp pointed nose. His fore legs are shorter than the others. The colour of his body is gray, with two broad rims of black round the eyes, and a dusky line running down the middle of the face. Raccoons are very easily domesticated, and then become very amusing and harmless animals. They are as mischievous as a monkey, and seldom remain at rest. Of ill treatment they are extremely sensible, and never forgive those from whom they have received it. They have also an antipathy to sharp and harsh sounds, such as the bark of a dog, and the cry of a child. These animals are hunted for the sake of their fur, which is used by the hatters, and is considered next in value to that of the beaver; it is used also in linings for garments. The skins, when properly dressed, are made into gloves and upper leathers for shoes. The negroes frequently eat the flesh of the Raccoon, and are very fond of it.



THE COATI-MONDI

Is a native of Brazil, not unlike the Racoon in the general form of the body, and, like that animal, it frequently sits up on the hinder legs, and in this position, with both paws carries its food to its mouth. If left at liberty in a state of tameness, it will pursue poultry, and destroy every living thing that it has strength to conquer. When it sleeps it rolls itself into a lump, and remains immoveable for fifteen hours together. His eyes are small, but full of life; and, when domesticated, this creature is very playful and amusing. A great peculiarity belonging to this animal is the length of his snout, which resembles in some particulars the trunk of the elephant, as it is moveable in every direction. The ears are round, and like those of a rat; the fore feet have five toes each. The hair is short and rough on the back, and of a blackish colour; the tail is marked with rings of black, like the wild cat; the rest of the animal is a mixture of black and red.



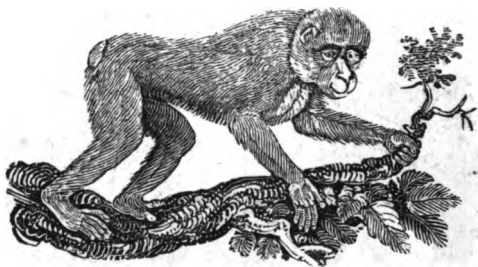
THE BADGER

INHABITS most parts of the world. The length of his body is about two feet six inches from the nose to the insertion of the tail, which is black like the throat, breast, and belly; the hair of the other part of the body is long and rough, of a yellowish white at the roots, black in the middle, and cinerous at the point: under the tail there is a receptacle, in which is secreted a white fetid substance, that constantly exudes through the orifice, and thus gives him a most unpleasant smell. Being a solitary animal, he digs a hole for himself, at the bottom of which he remains in perfect security; he feeds upon young rabbits, birds, and their eggs, and honey. The cruel sport of hunting him with dogs is still practised; and his motions when attacked are so quick, that a dog is often desperately wounded in the first moment of assault: he falls upon his back, combats with desperate resolution, and seldom dies unrevengeed of his enemies. It is indeed not easy to overcome him; his skin is so thick that it resists the impression of the teeth, and so loose, that he is enabled to turn round easily and bite his assailants in the most tender parts. The female brings forth every year, commonly three or four at a time.



THE OURANG OUTANG.

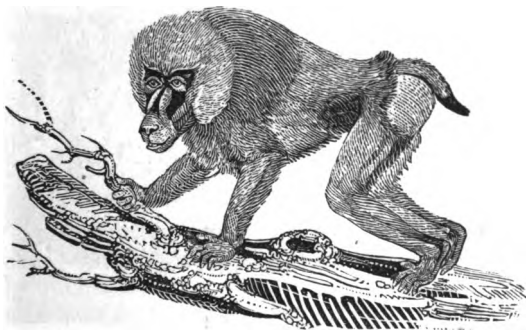
ANIMALS of the Monkey tribe are furnished with hands instead of paws, their ears, eyes, eyelids, lips, and breasts resemble the human kind. For greater facility of description, the animals of this extensive tribe are usually arranged in three divisions, of Apes, Baboons, and Monkeys. Apes are destitute of tails, and the chief of this kind is the Ourang Outang or Wild Man of the Woods; he is found in the interior parts of Africa, in Madagascar, and some parts of the East Indies. He is a solitary animal, avoids mankind. The largest are said to be six feet high, very active, strong, and intrepid, capable of overcoming the strongest man: they are likewise exceedingly swift, and cannot easily be taken alive. When young, however, the Ourang Outang is capable of being tamed; one of them, shown in London some years ago, was taught to sit at table, make use of a spoon or fork in eating, and drink wine out of a glass. It was mild and affectionate, much attached to its keeper, and obedient to his commands.



THE APE.

THE animal next to the ourang outang, and to be placed in the same class, is the Ape, properly so called. It is much less in size, not being above eighteen inches high; but walks erect, is without a tail, and may be tamed with tolerable facility. Caubasson relates a laughable anecdote of one of these animals, which he brought up tame, and which became so attached to him as to be desirous of accompanying him wherever he went: when, therefore, he had to perform divine service, he was under the necessity of shutting him up. One day, however, the animal escaped, and followed the father to church, where, silently mounting on the top of the sounding board above the pulpit, he lay perfectly quiet till the sermon began. He then crept to the edge, and overlooking the preacher, imitated his gestures in so grotesque a manner, that the whole congregation were unavoidably excited to laugh. Caubasson, surprised and displeased at this ill timed levity, reproved his auditors for their inattention; and on the obvious failure of his reproof, he, in the warmth of zeal, redoubled his actions and his vociferations. These the Ape so exactly imitated,

that all respect for their pastor was swallowed up in the scene before them, and they burst into a loud and continued roar of laughter. A friend of the preacher at length stepped up to him, and on pointing out the cause of this improper conduct, it was with the utmost difficulty he could command a serious countenance while he ordered the Ape to be taken away.



THE BABOON

Is commonly covered with black hair, a little intermixed with yellow. He has a canine face, the lower parts of which are of a bright vermilion; the snout resembles that of a hog, and the nails are flat, but sharp and very strong. We are told that he follows goats and sheep in order to drink their milk; partakes considerably of the human dexterity in getting the kernels out of nuts, and loves to be covered with garments; he stands upright, and imitates with ease many human actions. Baboons differ from the apes on the one hand, and the monkeys on the other, by having short tails.



MONKEYS

ARE bred in many countries, and are of various sorts and sizes. There are some in the East Indies beautifully spotted. This tribe is less in stature than the apes and baboons, but do more mischief, as they generally unite in great numbers for the sake of devastating a plantation, or of attacking and annoying some fiercer creatures, which they force away from their haunts by teasing and pelting them in all ways imaginable. Their natural food is vegetables, fruit of all sorts, corn, and even grass; but when domesticated, they learn to eat of all that is served on our tables. They are often seen in our streets, the unwelcome riders of the patient bear, and excite laughter by their cunning and their tricks.

There are few persons that are not acquainted with

the various mimics of these animals, and their capricious feats of activity: anecdotes of this kind are too numerous for selection; we shall content ourselves by giving the following affecting account:—Captain Stedman, while hunting among the woods of Surinam for provisions, says, that he shot at two of these animals: but that the destruction of one of them was attended with such circumstances, as almost ever afterwards deterred him from going a monkey hunting. “Seeing me nearly on the bank of the river, in the canoe,” says he, “the creature made a halt from skipping after his companions, and, being perched on a branch that overhung the water, examined me with the strongest marks of curiosity; while he chattered prodigiously, and kept shaking the boughs on which he rested with incredible strength and agility. At this time I laid my piece to my shoulder and brought him down from the tree: but may I never again be witness to such a scene! The miserable animal was not dead, but mortally wounded. I seized him by the tail, and taking him in both my hands, to end his torment, swung him round, and hit his head against the side of the canoe; but the poor creature still continued to live, and looked at me in the most affecting manner that can be conceived. I therefore knew no other means of ending his murder than to hold him under water till he was drowned: but even in doing this, my heart sickened on his account; for his little dying eyes still continued to follow me with seeming reproach, till their light gradually forsook them, and the wretched animal expired.”

The *Mona, Green, and Fair Monkeys*, represented above, are small species of the same class, and have all a long grasping tail, very useful to them when playing and jumping from branch to branch in the plantations of canes and cocoa trees.



THE STRIATED MONKEY

Is of a small size, not measuring more than seven inches; his tail near eleven; he weighs about six ounces; inhabits the Brazils, and, as others, lives entirely on vegetables. His face is almost naked, of a swarthy flesh colour, with a white spot above the nose: the tail is full of hair, and annulated with ash colour and black rings alternately; its nails are sharp, and its fingers like those of a squirrel.

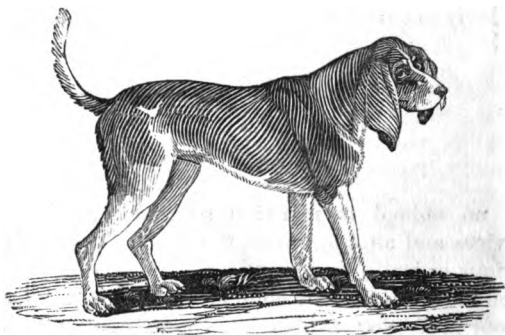
THE GREAT-EARED MONKEY

Has large, erect, square ears, and a swarthy flesh-coloured naked face; he is somewhat larger than the common squirrel, and his hair is soft, thick, and shaggy, of a well tempered mixture of orange and black. The hands and feet are of a light orange shade, and the tail is double the length of the body. He possesses, as well as the rest of the Monkey tribe,

very quick eyes, and beautiful white teeth; but like some others, who, with him, are natives of America, he has no pouches in the mouth, and the hind part of his body is covered with hair as well as the rest.

THE DOG.

To no animal is mankind so much indebted for services and affection as to the Dog. Among all the various orders of brute creatures, none have hitherto been found so entirely adapted to our use, and even to our protection, as this. There are many countries, both of the old and new continent, in which, if man were deprived of this faithful ally, he would unsuccessfully resist the foes that surround him, seeking opportunities to destroy his labour, attack his person, and encroach upon his property. His own vigilance, in many situations, could not secure him, on the one hand, against their rapacity, nor, on the other, against their speed. The Dog, more tractable than any other animal, conforms himself to the movements and habits of his master. His diligence, his ardour, and his obedience, are inexhaustible; and his disposition is so friendly, that, unlike every other animal, he seems to remember only the benefits he receives: he soon forgets our blows; and instead of discovering resentment while we chastise him, he exposes himself to torture, and even licks the hand from which it proceeds.



THE BLOODHOUND

Is taller than the old English Hound, most beautifully formed, and superior to every other kind in activity, speed, and sagacity. They seldom bark, except in the chase: they are commonly of a reddish or brown colour, with long ears. They never leave their game until they have caught and killed it. They are employed in chasing the hare, fox, hart, badger, &c.

Bloodhounds were formerly used in certain districts lying between England and Scotland, which were much infested by robbers and murderers; and a tax was laid upon the inhabitants for keeping and maintaining a certain number of them. But as the arm of justice is now extended over every part of the country, and there are no secret recesses where villany may lie concealed, these services are no longer necessary; but they are still used to hunt the felon, in the Spanish West Indies, and many surprising anecdotes are told of their wonderful sagacity and power of scent.

“ ——— Conscious of the recent stains, his heart
Beats quick ; his snuffing nose, his active tail,
Attest his joy : then with deep opening mouth,
That makes the welkin tremble, he proclaims
The’ audacious felon.——”

The old English Hound, the original breed of the island, and used by the ancient Britons in the chase, is a most valuable Dog ; though the breed has been gradually declining, and the size studiously diminished by a mixture of other kinds, in order to increase the speed. It seems to have been accurately described by Shakspeare in the following lines :—

“ My Hounds are bred out of the Spartan kind,
So flew’d, so sanded ; and their heads are hung
With ears that sweep away the morning dew ;
Crook-kneed and dew-lapp’d, like Thessalian bulls ;
Slow in pursuit ; but match’d in mouth like bells,
Each under each.”



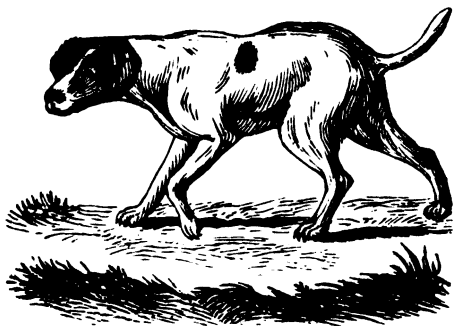
THE SPANIEL

Has received from nature a very keen smell, good understanding, and uncommon docility. He is used in setting for partridges, pheasants, quails, &c. His steadiness in the field, his caution in approaching game, his patience in keeping the bird at bay till the

fowler discharges his piece, are real objects of admiration.

“ When milder autumn summer's heat succeeds,
And in the new-shorn field the partridge feeds,
Before his lord the ready Spaniel bounds ;
Panting with hope, he tries the furrow'd grounds ;
But when the tainted gales the game betray,
Couch'd close he lies and meditates the prey ;
Secure they trust th' unfaithful field beset,
Till hovering o'er them sweeps the swelling net.”

POPE'S WINDSOR FOREST.



THE POINTER

Is about the size of a bulldog, and spotted like a spaniel. In disposition it is docile, and, when trained, is of the greatest service to the sportsman who delights in shooting. It is astonishing to see to what a degree of obedience these animals may be brought. Their sight is equally acute with their scent; from which quickness of sight, they are enabled to perceive at a distance the smallest sign from their master. When they scent their game, they fix themselves like statues, in the very attitude in which they happen to be at the moment. If one of their fore feet is not on the ground when they first scent, it remains suspended, lest, by putting it to the ground, the game might be too soon

alarmed by the noise. In this position they remain, until the sportsman comes near enough, and is prepared to take his shot; when he gives the word, and the dog immediately springs the game. This attitude has often been selected by the artist.



THE WATER SPANIEL

Is excellent for hunting otters, wild ducks, and other game, whose retreat is among the rushes and reeds which cover the banks of rivers, the fens, and the ponds. He is very sagacious, and perhaps the most docile and tractable of all the canine tribe. The Newfoundland Dogs are of this class, and the largest of the family; their strength and their faithfulness to their masters are well known, and the concurrence of both has often proved most useful to people who were on the point of being drowned.

The smaller *Water Spaniels* partake of the qualities of the others; they fetch and carry whatever they are bid, and often dive to the bottom of deep water in search of a piece of money, which they bring up in their mouths, and lay down at the feet of whom ever sent them; the best breed has black curly hair and long ears.



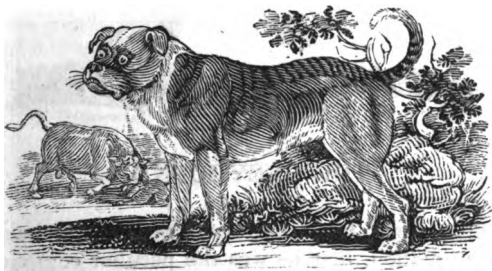
THE MASTIFF

Is the largest of the whole species; is a strong and fierce animal; has short pendent ears and a large head, great and thick lips hanging on each side, and a noble countenance; he is a faithful guardian, and a powerful defender of the house.

A curious account is given, by Stow, of an engagement between three Mastiffs and a lion, in the presence of James the First. "One of the Dogs, being put into the den, was soon disabled by the lion, which took him by the head and neck, and dragged him about: another Dog was then let loose, and served in the same manner: but the third, being put in, immediately seized the lion by the lip, and held him for a considerable time; till, being severely torn by his claws, the Dog was obliged to quit his hold; and the lion, greatly exhausted in the conflict, refused to renew the engagement; but taking a sudden leap over the Dogs, fled into the interior part of the den. Two of the Dogs soon died of their wounds; the last survived, and was taken great care of by the king's son, who said, 'He that had

fought with the king of the beasts should never after fight with any inferior creature.'

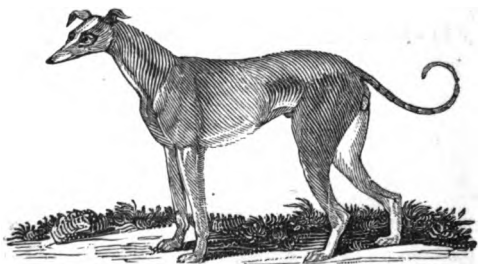
The following anecdote will show, that the Mastiff, conscious of its superior strength, knows how to chastise the impertinence of an inferior:—A large Dog of this kind, belonging to a gentleman near Newcastle, being frequently molested by a mongrel, and teased by its continual barking, at last took it up in its mouth by the back, and, with great composure, dropped it over the quay into the river, without doing any further injury to an enemy so much its inferior.



THE BULLDOG

Is much less than the mastiff, but the fiercest of all the Dog kind, and is probably the most courageous creature in the world. His short neck adds to his strength. Those of a brindled colour are accounted the best of the kind; they will run at and seize the fiercest bull without barking, making directly at his head, sometimes catch hold of his nose, pin the animal to the ground, and make him roar in a most tremendous manner, nor can they without difficulty be made to quit their hold.

Some years since, at a bull-baiting in the north of England, when this barbarous custom was very common, a young man, confident of the spirit of his Dog, laid a wager that he would, at separate times, cut off all the animal's feet, and that he would continue to attack the bull after each amputation. The experiment was tried, and the brutal wretch won his wager.



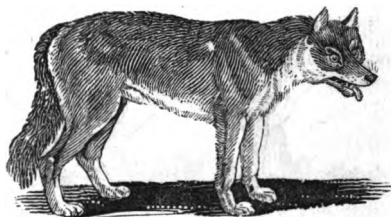
THE GREYHOUND

Is well known at present, and was formerly held in such estimation, that he was the peculiar companion of a gentleman, who, in ancient times, was known by his horse, his hawk, and his Greyhound: it was formerly penal by the law of the land, for any person below the rank of a gentleman to keep a Dog of this kind. He is the fleetest of all Dogs, and can outrun every animal of the chase. He has a long body, and is of an elegant shape; his head is neat and sharp, with a full eye, a good mouth, sharp and very white teeth; his tail is long, and curls round above its hind part. He courses more by sight than by scent, and is said to outlive all kinds of Dogs. There are several varieties; as the Italian Greyhound, Oriental Greyhound, &c.



THE FOX

Is produced in most countries, and varies much in size and colour. In Muscovy some are white, some red, and others black. His abode is generally on the skirt of a wood, in a hole which some other animal has either voluntarily left or been driven from. Nature, who endowed him with sagacity, craft, and cunning, has not, however, allotted him a long life; being classed by her among the dog kind, the duration of his existence does not exceed twelve or fifteen years. His bite is tenacious and dangerous, as the severest blows cannot make him quit his hold; his eye is most significant, and expressive of every passion, as love, fear, hatred, &c. The Fox is the greatest enemy to the poultry-yard, which he depopulates often in the course of one night. But when his choice food, the chicken flesh, is not accessible, then he devours animal food of all kinds, even serpents, lizards, frogs, toads; and if his habitation is near the water, he even contents himself with shellfish. In France and Italy he does a great deal of damage in vineyards, being very fond of grapes, and spoiling many for the choice of one bunch: his stratagems are well known, and need not to be related here. The Fox produces but once a year, and seldom has more than four or five cubs at a litter.



THE WOLF,

WHEN hungry, is an undaunted and most ferocious inhabitant of the woods, but a coward when the stimulus of appetite is no longer in action; he delights to roam in mountainous countries, and is a great enemy to sheep and goats; the watchfulness of dogs can hardly prevent his dilapidations, and he often dares to visit the haunts of men, howling at the gates of cities and towns. His head and neck are of a cinereous colour, and the rest of a pale yellowish brown. He commonly lives to the age of fifteen or twenty years, and possesses a most exquisite power of smelling his prey at a great distance. Wolves are found nearly every where, except in England, where this noxious race has been entirely destroyed. King Edgar first attempted to effect this by remitting the punishment of certain crimes on producing a number of Wolves' tongues; and in Wales, the tax of gold and silver was commuted for an annual tribute of Wolves' heads. In the reign of Athelstan, Wolves abounded so much in Yorkshire, that a retreat was built at Flixton, to defend passengers from their attacks. They infested Ireland many centuries after their extinction in England; the last presentment for killing Wolves was made in the county of Cork about the year 1710. They abound in.

the immense forests of Germany ; and so great is the general detestation of this destructive creature, that all wild animals endeavour to avoid it. The language of the poet is beautifully descriptive of this creature's insatiable fury :—

“ By wintry famine roused, from all the tract
Of horrid mountains, which the shining Alps,
And wavy Apennine, and Pyrenees,
Branch out, stupendous, into distant lands,
Cruel as death ! and hungry as the grave !
Burning for blood ! bony, and gaunt, and grim !
Assembling Wolves, in raging troops, descend ;
And, pouring o'er the country, bear along,
Keen as the north wind sweeps the glossy snow :
All is their prize.”



THE JACKALL,

COMMONLY called *the lion's provider*, is not much larger than the fox, whom he resembles in the appearance of the fore part of his body. His skin is of a bright yellow colour. The Jackalls often unite to attack their prey, and make a most hideous noise, which, rousing the king of the forest from his slumbers, brings him to the place of food and plunder : at his arrival, the petty thieves, awed by the greater strength of their new mess-mate, retire to a distance ; and hence the fabulous story of their attendance on the lion, to provide for his food.—These animals are always seen in large flocks

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of forty or fifty; and hunt, like hounds, in full cry, from evening till morning. In want of prey, they dig the dead out of their tombs, and feed greedily on putrid corpses; but notwithstanding the natural ferocity of these animals, it is said that when taken young they may be easily tamed, and, like dogs, they love to be fondled, wag their tails, and show a considerable degree of attachment to their masters. They are common in Cilicia, and other parts of Asia Minor.



THE HYÆNA

Is the most savage, fierce, cruel, and untractable of all quadrupeds; he appears as if always in a rage. He is an animal of the dog kind, and resembles the wolf in his shape; but his legs are longer than those of the dog or the wolf, and different from all other quadrupeds, in having but four toes as well on the fore feet as on the hinder. He is covered with long, coarse, and rough ash coloured hair, marked with long black stripes, from the back downwards; the tail is very hairy. Like the jackall, he devours the flocks and herds, cares little for the watchfulness or strength of dogs, and when pressed with hunger, comes and howls at the gates of towns, and violates the repositories of

the dead. He naturally inhabits Asia and Africa, but has sometimes been found in Europe. When receiving his food, the eyes of this fierce animal glisten, the bristles of his back stand erect, and his teeth appear; all which give him a most frightful aspect, still further heightened by a tremendous howl.

Mr. Bruce, in speaking of these animals, observes: "They are a plague in Abyssinia, both in the city and in the field; and they even surpass the sheep in number. Gondar was full of them from the time of dark till the dawn of day, seeking for the dead, which this cruel and unclean people expose in the streets without burial. On returning, in the evening, from visiting the king, they have grunted in great numbers about me, though I was surrounded with several armed men, who seldom passed a night without wounding or slaughtering some of them.

"One night, in Maitsha, I heard something pass behind me toward the bed; but upon looking round, could perceive nothing. Having finished what I was about, I went out of my tent, resolving directly to return, which I immediately did, when I perceived two large blue eyes glaring at me in the dark. I called up my servant with a light, and we found a Hyæna standing near the head of the bed, with two or three large bunches of candles in his mouth. To have fired at him, would have been at the risk of breaking my quadrant, or other furniture; and he seemed, by keeping the candles steadily in his mouth, to wish for no other prey at that time. As his mouth was full, and he had no claws to tear with, I was not afraid of him; but with a pike struck him as near the heart as I could judge. Upon feeling his wound, he let drop the candles, and endeavoured to run up the shaft of the spear to arrive at me, so that I was obliged to draw my pistol from my girdle and shoot him; and nearly at the same time, my servant cleft his skull with a battle-

axe. In a word, the Hyæna was the plague of our lives, the terror of our night walks, and the destruction of our mules and asses, which, above every thing else, are his favourite food."

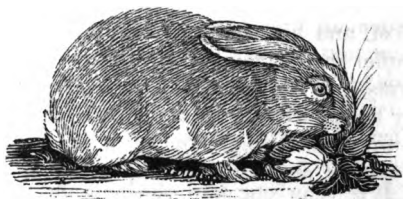


THE HARE.

THIS small quadruped is well known on our table as affording a meat delicious to the palate. His swiftness cannot save him from the search of his enemies, among whom man is the most inveterate. Unarmed and fearful, the Hare sleeps with open eyes, if he sleep at all. His hind legs are longer than his fore legs, to enable him to run up hills; his eyes are so prominently jutting out of his head, that they can encompass at once the whole horizon of the plain where he has chosen his form, so his seat or bed is called; and his ears so long, that the least noise cannot escape him. He seldom outlives his seventh year, and breeds plentifully. His flesh is dark, but of a delightful taste. Naturally wild and timorous, he may, however, be tamed, and taught several tricks, which are often the amusement of the vulgar. The following is from the entertaining account, given by Cowper, of three Hares that he brought up tame, in his house; the names he gave them were Puss, Tiney, and Bess. Tiney was a reserved and surly Hare; Bess, who was a Hare of great humour

and drollery, died young. "Puss grew presently familiar, would leap into my lap, raise himself upon his hinder feet, and bite the hair from my temples. He would suffer me to take him up and carry him about in my arms, and has more than once fallen fast asleep upon my knee. He was ill three days, during which time I nursed him, kept him apart from his fellows that they might not molest him (for, like many other wild animals, they persecute one of their own species that is sick), and by constant care, and trying him with a variety of herbs, restored him to perfect health. No creature could be more grateful than my patient after his recovery, a sentiment which he most significantly expressed by licking my hand, first the back of it, then the palm, then every finger separately, then between all the fingers, as if anxious to leave no part of it unsaluted; a ceremony which he never performed but once again upon a similar occasion.

"Finding him extremely tractable, I made it my custom to carry him always after breakfast into the garden, where he hid himself generally under the leaves of a cucumber vine, sleeping or chewing the cud, till evening; in the leaves also of that vine he found a favourite repast. I had not long habituated him to this taste of liberty, before he began to be impatient for the return of the time when he might enjoy it. He would invite me to the garden by drumming upon my knee, and by a look of such expression as it was not possible to misinterpret. If this rhetoric did not immediately succeed, he would take the skirt of my coat between his teeth, and pull at it with all his force. Thus Puss might be said to be perfectly tamed, the shyness of his nature was done away, and, on the whole, it was visible, by many symptoms, which I have not room to enumerate, that he was happier in human society than when shut up with his natural companions."



THE RABBIT

Is not unlike the hare ; his flesh is white and good, but not so much prized ; his head, ears, and tail are shorter than the hare's. The colour of the wild Rabbit is constantly the same ; but we have domestic ones of nearly every colour. The female begins to breed when she is about twelve months old, and bears at least seven times a year ; and such is its fertility, that if we should calculate the produce of a single pair, in one year, the number would be amazing. They commonly bring forth eight at each time, and on a supposition that this happens regularly, at the end of four years, a couple of Rabbits might see a progeny of almost a million and a half ! Hence we might justly apprehend being overstocked by their increase, did not their destruction by various enemies bear a near proportion to their fecundity. The skin of the Rabbit, like that of the hare, is much esteemed for several uses ; and, although he is less timid than the hare, he will flee from man as soon as he sees him : the female is very careful in concealing her litter, lest the male should destroy it, which is generally the case when he finds it in his way. One of the dissenting points in the characteristics of these two animals, so like each other in many respects, is, that the hare lives above, and the Rabbit under ground.

Tame Rabbits are larger than wild ones, from their taking more nourishment, and using less exercise. They

are of various colours, and they do not, like wild Rabbits, burrow in the ground.

A gentleman, who bred up tame Rabbits for his amusement, has given the following account of their production :—" I began," says he, " by having but one male and female only ; the male was entirely white, and the female brown : but in their posterity, the number of the brown far exceeded those of any other colour. It is surprising how obedient and submissive the descendants were to their common parent. He was easily distinguished from the rest by his superior whiteness : and however numerous the other males were, this kept them all in subjection. Whenever they quarrelled among each other, he ran up to them with great dispatch, and upon his appearance all was instantly reduced to peace and order. Another instance of his superiority was, that having accustomed them to come to me with the call of a whistle, the instant this signal was given, I saw him marshalling them up, leading them the foremost, and then suffering them to file off before him."



THE SQUIRREL.

ELEGANCE of shape, spiritedness, and agility to leap from bough to bough in the forest, are the principal features of this pretty animal, whose spreading tail

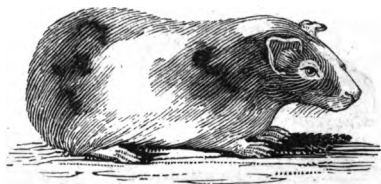
helps the creature as the wings support a bird in the air, and seems to unite the quadrupeds to the feathered tribe. The Squirrel is of a deep reddish brown colour; his breast and belly white. He is lively, sagacious, docile, and nimble: he lives upon nuts, and has been seen so tame as to dive into the pocket of his mistress, and search after an almond or a lump of sugar. In the woods he leaps from tree to tree with surprising agility, living a most frolicsome life, surrounded with abundance, and having but few enemies. His time, however, is not entirely devoted to idle enjoyment, for in the luxuriant season of autumn, he gathers provisions for the approaching winter; as if conscious that the forest would then be stripped of its fruits and foliage. His tail is to him as a parasol to defend him from the rays of the sun, as a parachute to secure him from dangerous falls when leaping from tree to tree, and as a sail in crossing the water, a voyage he sometimes performs in Lapland on a bit of ice or a piece of bark inverted in the manner of a boat.

The *Palatouche*, or *Flying Squirrel*, is a species of the same genus; his tail is much smaller, but in compensation he has a large membrane proceeding from the fore feet to the hind legs, which answers the same purpose as the Squirrel's tail, and enables him to give surprising leaps that almost resemble flying. In the act of leaping, the loose skin is stretched out by the feet; whereby the surface of the body is augmented, the animal becomes lighter in proportion to its bulk, the acceleration of its fall is retarded, and it appears to sail or fly from one place to another. Where numbers of them are seen at a time leaping, they appear like leaves blown off by the wind. This animal is said to partake of the nature of the Squirrel, the rat, and the dormouse.



THE MARMOT, OR ALPINE RAT,

Is a harmless inoffensive animal, and seems to bear enmity to no creature but the dog. He is caught in Savoy, and carried about in several countries for the amusement of the mob. When taken young, this creature is easily tamed, and possesses great muscular strength and agility. He will often walk on his hinder legs, and uses his fore paws to feed himself, like the squirrel. The Marmot makes his hole very deep, and in the form of the letter Y, one of the branches serving as an avenue to the innermost apartment, and the other sloping downwards as a kind of sink or drain; in this safe retreat he sleeps throughout the winter, and if discovered may be killed without appearing to undergo any great pain. These animals produce but once a year, and bring forth three or four at a time. When a number of Marmots are feeding together, one of them stands sentinel upon a wall; and on the first appearance of a man, a dog, an eagle, or any dangerous animal, he utters a loud and shrill cry, as a signal for immediate retreat. The Marmot inhabits the highest regions of the Alps; and is likewise found in Poland, Ukraine, and Chinese Tartary.



THE GUINEAPIG, OR CAVI,

Is generally white, with spots of red and black. He is a native of the Brazils, but now domesticated in most parts of Europe. The female is very prolific, breeding nearly every two months, and bringing from four to twelve at a litter. This animal seems to hold a middle place between the mouse and rabbit tribe, but is much slower in its motions than either. It is less than the rabbit, and its legs and neck are so short, that the former are scarcely seen, and the latter seems stuck upon its shoulders. They are so extremely cleanly, that the male and female may be often seen alternately employed in smoothing each other's skins, disposing their hair, and improving its gloss; and if the young ones happen to fall into the dirt, or be, by any other accident, discomposed, the female takes such an aversion to them, that she never permits them to visit her more. They sleep, like the hare, with their eyes half open, and continue extremely watchful if they apprehend any danger. The male and female are never seen to sleep at the same time; but while he enjoys his repose, she remains upon the watch, silently continuing to guard him, and her head turned towards the place where he lies. When he has had his turn, she awakes him with a kind of murmuring noise, forces him from his bed, and lies down in his place. He

then performs the same kind office for her, and continues watchful till she also has done sleeping. They are very fond of dark retreats; and previously to their quitting these, they look round and seem to listen attentively; then, if the road be clear, they sally forth in quest of food; but run back on the slightest alarm.



THE MOUSE

Is a lively, active animal, and the most timid in nature, except the hare, and a few other defenceless species. Although timid, he eats in the trap as soon as he is caught; yet he never can be thoroughly tamed, nor does he betray any affection for his assiduous keeper. He is beset by a number of enemies, among which are the cat, the hawk and owl, the snake and weasel, and the rat himself, though not unlike the Mouse in his habits and shape. The Mouse is one of the most fecund animals, and it is supposed that the life of this small inmate of our habitations does not extend much farther than three years. This creature is known all over the world, and breeds wherever it finds food and tranquillity. There are Mice of various colours, but the most common is of a dark, cinereous hue: white Mice are not uncommon, particularly in Savoy and some parts of France.

A remarkable instance of sagacity in a Long-tailed

Field Mouse, occurred to the Rev. Mr. White, as his people were pulling off the lining of a hot-bed, in order to add some fresh dung. From the side of this bed something leaped with great agility, that made a most grotesque appearance, and was not caught without much difficulty. It proved to be a large Field Mouse, with three or four young ones clinging to her teats by their mouths and feet. It was amazing that the desultory and rapid motions of the dam did not oblige her litter to quit their hold, especially when it appeared that they were so young as to be both naked and blind. The same author appears to be the first to describe and accurately examine that diminutive creature the Harvest Mouse, the least of all the British quadrupeds. He measured some of them, and found that from the nose to the tail they were two inches and a quarter long. Two of them, in a scale, weighed down just one copper halfpenny, about the third of an ounce avoirdupois! Their nest is a great curiosity.



THE RAT

Is about four times as large as a mouse, but of a dusky colour, with white under the belly; his head is longer, his neck shorter, and his eyes comparatively bigger.

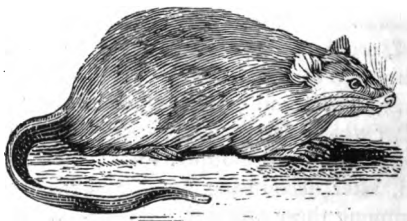
This animal is so attached to our common dwellings, that it is almost impossible to destroy the breed, when they have once taken a liking to any particular place. Their produce is enormous; as they bring from ten to twenty young ones at a litter, and this thrice a year. Thus their increase is such, that it is possible for a single pair (supposing food to be sufficiently plentiful, and that they had no enemies to lessen their numbers) to amount, at the end of two years, to upwards of a million; but an insatiable appetite impels them to destroy each other; the weaker always falls a prey to the stronger, and the large male Rat, which usually lives by itself, is dreaded by those of its own species as their most formidable enemy. The Rat is a bold and fierce little animal, and when closely pursued, will turn and fasten on its assailant. Its bite is keen, and the wound it inflicts is painful and difficult to heal, owing to the form of its teeth, which are long, sharp, and of an irregular form.

A gentleman, some time ago, travelling through Mecklenburgh, was witness to a very singular circumstance respecting one of these animals, in the post-house at New Hargarel. After dinner, the landlord placed on the floor a large dish of soup, and gave a loud whistle. Immediately there came into the room a mastiff, an Angora cat, an old raven, and a large Rat with a bell about its neck. They all four went to the dish, and, without disturbing each other, fed together; after which, the dog, cat, and Rat lay before the fire, while the raven hopped about the room. The landlord, after accounting for the familiarity which existed among these animals, informed his guest that the Rat was the most useful of the four; for that the noise he made had completely freed the house from the Rats and mice with which it had been before infested.



THE WATER RAT

DIFFERS very little from the *Land Rat*, and inhabits the banks of rivers and ponds, where he digs holes always above the water mark, and feeds on fish, frogs, and insects. The Norway Rat, which has now almost destroyed those of the country, was first known in England about sixty years ago: they live near rivers and ponds in summer, and when winter approaches, they frequent the farm house, burrow in the corn fields, infest the mows and stacks, attack the poultry yard, and commit vast depredations.



THE MUSK RAT

Is a native of Canada, and resembles the beaver in many of the habits of life. He has a fine musky scent, and builds his holes in marshes, and by the waterside,

with two or three ways to get in or go out, and several distinct apartments, in the manner of the beaver. He lives upon small fish and water insects.



THE MOLE

Is about the bigness of a common rat; his snout resembles that of a hog, and his feet are somewhat like those of the bear, but turned backward, and armed with five strong toes, that have sharp nails; the ears of the Mole are without outside shells, and consist of two small orifices. His eyes are so small, that it has been long believed that this animal, living always under ground, was not provided with the organs of sight. The burrow, in which the female brings forth her young, is strewed with grass and dry leaves for their accommodation, and divides into several holes in different directions to the length of fourteen or fifteen feet, for the security of the family.

The following curious fact is related by Mr. Bruce. "In visiting the Loch of Clunie, I observed in it a small island, at the distance of a hundred and eighty yards from the land. Upon this island Lord Airley, the proprietor, had a castle and small shrubbery. I observed frequently the appearance of fresh molehills; but for some time took it to be the water mouse, and one day I asked the gardener if it was so. He replied it was the Mole, and that he had caught one or two

lately: but that five or six years ago he had caught two in traps, and for two years after this he had observed none. But about four years since, coming ashore one summer's evening, in the dusk, he and Lord Airley's butler saw, at a small distance upon the smooth water, an animal paddling to, and not far distant from the island. They soon closed with this feeble passenger, and found it to be the common Mole, led by a most astonishing instinct from the nearest point of land (the castle hill), to take possession of this island. It was at this time, for about the space of two years, quite free from any subterraneous inhabitant: but the Mole has, for more than a year past, made its appearance again."



THE DORMOUSE, OR SLEEPER,

AN animal somewhat like the mouse, of the order of Glires. They build their nests either in the hollow of trees, or near the bottom of thick shrubs, and line them most industriously with moss, soft lichens, and dead leaves. Conscious of the length of time they have to pass in their solitary cells, Dormice are very particular in the choice of the materials they employ to build and furnish them; and generally lay up a store of food, consisting of nuts, beans, and acorns: and on the approach of cold weather they roll themselves in balls, their tail curled up over their head between the ears,

and, in a state of apparent lethargy, pass the greatest part of winter, till the warmth of the sun, pervading the whole atmosphere, kindles their congealed blood, and calls them back again to the enjoyment of life, and the duty of propagating their species. Except in time of breeding and bringing up the brood, the Dormouse is generally found alone in his cell.



THE WEASEL.

THE animals of this tribe are all carnivorous. From their slender and lengthened bodies, short legs, and the very free motion in every direction, permitted by the loose articulations of the spine, they are well formed for pursuing their prey into the deepest recesses. Constituted by nature to subsist on animals, many of which have great strength and courage, they possess an undaunted and ferocious disposition. The species are extremely numerous. The Weasel is the smallest of this class; it has a long and thin body; its length, with its tail, is only seven inches, and its height not more than an inch and a half. There are some of this species of different colours, as red, brown, black, and some all white. There are two sorts, the domestic Weasel, living in houses, barns, &c.; the other wild, living in the woods and mountains. In the northern parts of Europe they are very numerous. This little creature will destroy rats, mice, and moles, but they do not spare hens, chickens, eggs, &c.

It was formerly supposed that the Weasel was untamable; but Buffon, in a supplementary volume, corrects this error, and from a letter of a female correspondent, shows that it may be rendered as familiar as a cat or a lapdog. It frequently eat from his correspondent's hand, and seemed fonder of milk and fresh meat, than of any other food. "If I present my hands," says this lady, "at the distance of three feet, it jumps into them without ever missing. It shows a great deal of address and cunning, in order to accomplish its ends, and seems to disobey certain prohibitions merely through caprice. During all its actions it seems solicitous to divert and be noticed, looking at every jump and at every turn to see whether it be observed or not. If no notice be taken of its gambols, it ceases them immediately, and betakes itself to sleep; and when awaked from the soundest sleep, it instantly resumes its gaiety, and frolics about in as sprightly a manner as before. It never shows any ill humour, unless when confined or too much teased, in which case it expresses its displeasure by a sort of murmur very different from that which it utters when pleased."



THE FERRET

Is a small, yet bold animal, and an enemy to all others but those of his own kind. He is made somewhat like a weasel, and breeds in all countries of Europe. His

eyes are remarkably fiery. The tame ones live on milk, bread, barley, &c.; the wild ones on the blood of rabbits, hares, &c. It is much used to drive rabbits from their holes, and for this purpose the Ferret is always muzzled, for it is such an inveterate enemy to the rabbit kind, that if a dead one be presented to a young Ferret, it instantly bites it with an appearance of rapacity; or if it be living, the Ferret seizes it by the neck, winds itself round it, and continues to suck its blood till it be satiated; indeed, its appetite for blood is so strong, that it has been known to attack and kill children in the cradle. It is very soon irritated; and its bite is very difficult to be cured.



THE GENNET CAT

Is in size between a cat and a fox. The skin is spotted and beautiful, of a reddish gray colour. The spots on the sides are round and distinct, those on the back almost close; its tail is long, and marked with seven or eight rings of black. From an orifice beneath its tail, it yields a kind of perfume, which smells faintly of musk. This little animal is meek and gentle, except when provoked, and is easily domesticated. In Constantinople it strays from house to house, as does our cat, and in its wild state inhabits marshy places and irriguous valleys.



THE POLECAT

HAS so strong and disagreeable a smell that it is become proverbial; his skin is stiff, hard, and rugged, and when well prepared, lasts long in garments. His tail is not above three inches long. The breast, tail, and legs are of a blackish colour, but the belly and sides yellowish. He keeps in secret corners at tops of houses, and is a disastrous pest to the poultry yard. Some of them frequent the woods and destroy a great quantity of birds; and some others, forsaking the haunts of man, retire to the rocks and crevices of the cliffs on the seashore, preferring a meagre and scanty diet with security, to the daintiness of chicken flesh and eggs, attended with trouble and fear. Rabbits, however, seem to be their favourite prey, and a single Polecat is often sufficient to destroy a whole warren. The *Polecat* is the same with the *Fitchat* or *Foumart*, the hair of which is made into fine brushes and pencils for the use of painters. This small animal is fierce and bold. When attacked by a dog, it will defend itself with great spirit, attack in its turn, and fasten upon the nose of its enemy with so keen a bite, as frequently to oblige him to desist.



THE CIVET CAT

Is found throughout India, Guinea, and the Philippine Islands, and famous for producing the perfume called *civet*. He is kept for the sake of this perfume, and fed with pap, made of millet, with a little fish or flesh boiled with it. The civet obtained from the male is esteemed the best. It is found in a large double glandular receptacle, situated at a little distance beneath the tail. When a sufficient time for the secretion has been allowed, one of these animals is put into a long wooden cage, so narrow that it cannot turn itself round. The cage being opened by a door behind, a small spoon is introduced through the orifice of the pouch, which is carefully scraped; this is done twice or thrice a week, and the animal is said always to produce the most civet after being irritated.

The *Berbe* is called by Europeans, *Wine Bibber*, because he is fond of palm wine; is much like a cat, only his snout is much sharper, and the body smaller. He is spotted like a Civet Cat.



THE ICHNEUMON,

A SPECIES of the weasel kind, found chiefly in Egypt, where he has been long domesticated, and even deified on account of his great utility in destroying serpents, snakes, rats, mice, and other vermin; he is also fond of crocodile's eggs, which he digs out of the sand where they have been deposited. He is a very fierce, though small animal, fearing neither the vengeance of the dog, the insidious malice of the cat, the claws of the vulture, nor the sting of the serpent. It has been asserted (upon what foundation we cannot ascertain) that the Ichneumon jumps into the jaws of the crocodile, and entering his throat, gnaws his inside, and by attacking his vitals, puts the animal to death.

The following particulars are related by M. D'Obsonville, in his *Essays on the Nature of various foreign Animals*:—"I had an Ichneumon very young, which I brought up. I fed it at first with milk, and afterward with baked meat mixed with rice. It soon became even tamer than a Cat; for it came when called, and followed me, though at liberty in the country. One day I brought this animal a small water serpent alive, being desirous to know how far his instinct would carry him against a being with which he was as yet totally unacquainted. His first emotion seemed to be astonishment mixed with anger, for his hair became erect; but in an instant he slipped behind the reptile,

and with remarkable swiftness and agility leaped upon its head, seized it, and crushed it between his teeth. This essay, and new food, seemed to have awakened in him his innate and destructive voracity, which till then had given way to the gentleness he had acquired from education. I had about my house several curious kinds of fowls, among which he had been brought up, and which, till then, he had suffered to go and come unmolested and unregarded: but a few days after, when he found himself alone, he strangled them every one, ate a little, and, as it appeared, drank the blood of two."



THE SABLE.

THIS animal is a native of North America, Siberia, Kamtschatka, and Asiatic Russia; it frequents the banks of rivers, and the thickest parts of the woods. They live in holes under the ground, and especially under the roots of trees; but they sometimes make their nests, like the squirrel, in the hollows of trees. The skin of the Sable is more valuable than that of any other animal of equal size. One of these skins, not more than four inches broad, has sometimes been valued at as high a rate as fifteen pounds; but the general price is from one pound to ten pounds, according to the quality. The Sable's fur is different from all others, in the hair turning with equal ease either

way. The tails are sold by the hundred, at from four to eight pounds.

The *Marten*, like the Sable, boasts of the honour of adorning with his fur the rich and the beautiful; as princes, ladies, and opulent people of all nations pride themselves in wearing his spoils. He is about as big as a cat, but the body is much longer proportionally, and the legs shorter. His skin is of a light brown, with white under the throat, and yellow on the back. The fur of the Marten fetches a high price, and is much used in European countries; the best is imported from Sweden, Russia, and Muscovy.



THE GREAT ANT-EATER.

THE body of the Great Ant-eater is covered with exceedingly coarse and shaggy hair. Its head is very long and slender, and the mouth but just large enough to admit its tongue, which is cylindrical, nearly two feet in length, and lies folded double within it. The tail is of enormous size, and covered with long black hair, somewhat like the tail of a horse. The whole animal, from the end of the snout to the tip of the tail, is sometimes eight or nine feet in length. The food of

this very singular animal consists principally of ants, and these he obtains in the following manner:—When he comes to an ant-hill, he scratches it up with his long claws, and then unfolds his slender tongue, which much resembles an enormously long worm. This being covered with a clammy matter or saliva, the ants adhere to it in great numbers: then, by drawing it into his mouth, he swallows thousands of them alive; and he repeats the operation till no more are to be found.

He also tears up the nests of wood-lice, which he in like manner discovers; and frequently climbs trees in quest of these insects, and of wild bees or their honey. But should he meet with little success in his pursuit of food, he is able to fast for a considerable time without inconvenience. The motions of the Ant-eater are in general very slow. He, however, swims over great rivers with sufficient ease; and on these occasions, his tail is always thrown over his back. With this extraordinary member, when asleep, or during heavy showers of rain, the animal also covers its back; but at other times he trails it along, and sweeps the ground.



THE PORCUPINE

Grows to the height of about two feet and a half, and his body is covered with hair and sharp quills, from ten to fourteen inches long, and bent backwards.

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When the animal is irritated, they stand erect; but it is a folly to believe, and nonsense to repeat, after ill-informed naturalists, that the Porcupine can shoot them at his enemies. The female goes seven months with young, and brings forth only one at a time. They are reported to live from twelve to fifteen years. The Porcupine is dull, fretful, and inoffensive; feeds upon fruits, roots, and vegetables of many sorts; and inhabits India, Persia, Italy, and almost every part of Africa.

Mr. Bewick, in his History of Quadrupeds, asserts, that, upon the smallest irritation, this animal erects its quills, and shakes them with great violence, directing them to the quarter whence it is in danger of being attacked. "We have observed," says he, "on an occasion of this sort, when the animal was moulting or casting its quills, that they would fly out to the distance of a few yards, with such force as to bend the points of them against the board where they struck: and it is not improbable that a circumstance of this kind may have given rise to an opinion of its power to use them in a more effectual manner."



THE HEDGEHOG

Is somewhat like a porcupine in miniature; and, in shape, resembles the animal from which he derives his name; he is covered all over with strong and sharp

spines or prickles, which he erects when irritated. He is no more than ten inches in length; and, by rolling himself in the shape of a ball, can resist the attack of his strongest enemies, among which are the cat, the weasel, the marten, and the dog. His common food consists of apples, grapes, and other fruits; and far from being a noxious animal in a garden, he soon destroys the worms and snails, which he feeds upon when he finds no windfall to devour. Hedgehogs inhabit most parts of Europe. Some are also found in Asia, but of a smaller size. Notwithstanding its formidable appearance, the Hedgehog is one of the most harmless animals in the world. While other creatures trust to their force, their cunning, or their swiftness, this quadruped, destitute of all, has but one expedient for safety, and from this alone it generally finds protection. The instant it perceives an enemy, it withdraws all its vulnerable parts, rolls itself into a ball, and presents nothing to view but a round mass of spines, impervious on every side. When the Hedgehog is thus rolled up, the cat, the weasel, the ferret, and the marten quickly decline the combat; and the dog himself generally spends his time in empty menaces rather than in effectual efforts, while the little animal waits patiently till its enemy, by retiring, affords an opportunity for retreat.

Buffon, who kept these animals tame about his house, acquits them also of the reproach of being mischievous in the garden, but he accuses them of other tricks, which their form and habits would never induce one to suspect. "I have often," says this naturalist, "had the female and her young brought to me, about the beginning of June; and being willing to rear some of them, I once put the dam and her family in a tub, with an ample supply of provision: but the old animal, instead of suckling her young, devoured them all, one after another."



THE OPOSSUM

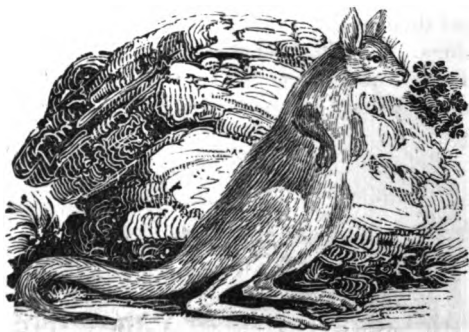
MERITS the closest observation of the philosopher, and his admiration of the variety of means which nature employs to preserve the continuance of the species. The young of the Opossum are brought forth, as it should seem, before their time, and the finishing of their formation is performed in a bag which the mother has under her belly, in which they find a place of security, and whither they retire at the approach of danger. This animal is about the size of a badger, with a long tail, and sits up easily on his hinder legs. He is an inhabitant of Virginia, and feeds upon fish, birds, and vegetables. He frequently hangs by the tail, which is very muscular; and in this situation watches his prey for hours together. If any lesser animal, which it is able to overcome, happen to pass underneath, it drops upon it with unerring aim, and quickly devours it. By means of its tail, it likewise slings from tree to tree, hunts insects, escapes its pursuers, and provides for its safety. It may be easily tamed, but is a disagreeable domestic, as well from its

figure and stupidity as its musky scent. The American Indians spin the hair of the Opossum and dye it red, and then weave it into girdles and other parts of their dress. The flesh of these animals is white and well tasted, and is preferred by the Indians to pork: that of the young ones eats very much like the sucking pig.



THE JERBOA,

A SINGULAR genus of animals; their principal character consists in their having very short fore legs, and very long hinder ones. This creature is about the size of a rat; the head resembles that of a rabbit with long whiskers; the tail is ten inches long, and terminated by a tuft of black hair. The fur of the body is tawny, except the breast and throat, and part of the belly, which are white. The Jerboa is very active and lively, always walks on the hinder feet, and jumps and springs, when pursued, six or seven feet from the ground. He burrows like the rabbit, and feeds like the squirrel; he is a native of Egypt, and all the adjacent countries.



THE KANGUROO.

THIS very singular species of quadruped was first discovered in New South Wales by Sir Joseph Banks, while accompanying Captain Cook in his first circumnavigation of the world. It is of the opossum kind, but bearing also a great affinity in shape and manners with the jerboa, though considerably larger, the body being upwards of three feet in length ; the fore feet are armed with five claws, and the hind ones with three, the middle one resembling a strong hoof, and considerably larger than the others. The Kangaroo neither runs nor walks, but leaps with great swiftness on his hinder legs. Its fur is short and soft, of a reddish ash colour, lighter on the lower parts. It is furnished with a pouch, similar to the opossum, in which its young are nursed and sheltered. The Kangaroo is the only quadruped our colonists have yet met with in New South Wales that supplies them with animal food. He feeds entirely on vegetables. In their wild state, these animals are said to feed in herds of thirty or forty together, while one is stationed at a distance from the rest, as if on the watch.



THE SLUGGARD, SLOTH, OR POTTO,

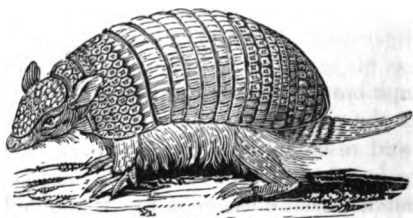
As he is called by the Negroes, is the most idle and listless of all breathing creatures. He can hardly be said to have been endowed by Providence with locomotion, as his crawling on the earth, or climbing the trees, is not only long and slow, but also attended with difficulty and groanings. The faint sound *Ai*, which he utters when labouring along, has been the cause of his being called by this name.

The Sloth subsists entirely upon vegetable food ; and, as it requires a considerable share of provision, it generally strips a tree of all its verdure in less than a fortnight. It then falls to devouring the bark, and thus, in a short time, destroys the very source of its support. When this is the case, being unable to descend, it is obliged to drop from the branches to the ground ; and after remaining some time torpid, from the violence of its fall, it prepares for a tedious, dangerous, and painful migration to some neighbouring tree, which is soon killed like the former.

The look of this animal is so piteous as to excite compassion ; and is also accompanied with tears, that dissuade every one from injuring so wretched a being.

Its power of abstinence is very remarkable, and the strength of its feet so great, that whatever it seizes on cannot possibly be freed from its claws. One that had fastened itself to a pole, and was so suspended across two beams, is said to have remained forty days without meat, drink, or sleep. Being taken from the pole, a dog was let loose at it; but, after some time, the Sloth seized his enemy with his claws, and held him four days, till both perished with hunger.

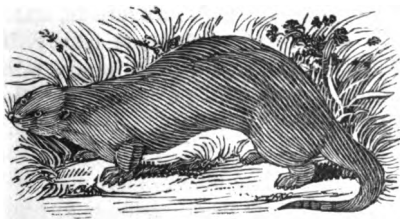
The *Unau* is a branch of the same family. The flesh of both kinds is eaten by the inhabitants of South America and of the island of Ceylon, and has not a disagreeable taste.



THE ARMADILLO.

NATURE seems to have been singularly careful in the preservation of this animal, for she has surrounded him with a coat of armour, to defend him from his enemies. When closely pursued, he turns himself, withdraws his head under the shell, and assumes the shape of a ball; if he be near a precipice, he rolls from one rock to another, and escapes without receiving any injury. The shell, which covers the whole of the body, is composed of several scales, very hard, and of a square shape, united by a kind of cartilaginous

substance, which gives flexibility to the whole. The Manis and Pangolin seem to approach the character of this genus, and all of them to be a link between the quadrupeds and the lizards. They live chiefly on ants and other small insects.

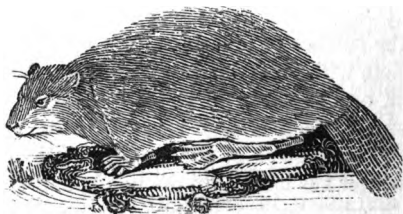


THE OTTER

Is an amphibious animal, and pursues his prey much swifter in the water than on land. He is less than a beaver, and resembles him in most parts, except the tail. He is of a brown chestnut colour; the tail is short, and like that of some dogs. Though he lives, as we may say, in the water, yet he is forced to come often to the surface to breathe. Fish are his prey; he catches them with great dexterity, and hoards them up in his den, on the banks of rivers, to such a quantity that the smell becomes soon very offensive, and often betrays the retirement of the owner. When the icy hand of winter has locked up the ponds and rivers, the Otter, reduced to famine, is obliged to change his diet, and feeds upon fruit, roots, and bark of trees. At the great banquet which Nature has spread on the surface of the globe, affluence alone creates superciliousness, and when it fails, hunger seasons every food; and, except a few classes, which are doomed to the use of

one particular nourishment, most of the brute creation know then how to supply the want of appropriate aliment. An Otter may be tamed, and taught to catch fish enough to sustain not only himself but a whole family. Goldsmith states that he saw an Otter go to a gentleman's pond at the word of command, drive the fish into a corner, and seize upon the largest of the whole, bring it off, and give it to his master.

Bewick, in his History of Quadrupeds, states, that a person of the name of Collins, who lived at Kilmerston, near Wooler, in Northumberland, had a tame Otter, which followed him wherever he went. He frequently took it to fish in the river ; and, when satiated, it never failed to return to him. One day, in the absence of Collins, the Otter, being taken out to fish by his son, instead of returning as usual, refused to come at the accustomed call, and was lost. The father tried every means in his power to recover the animal ; and, after several days' search, being near the place where his son had lost it, and calling it by name, to his inexpressible joy it came creeping to his feet, and showed many marks of affection and attachment.



THE BEAVER

Is a most industrious creature, and well known for his skill in building apartments for himself and his family, on the banks of narrow rivers, where he watches the

passing fish, which he brings out of the water, to devour at pleasure. His work begins with cutting a tree that bends over the stream, by its fall to create a mole or dyke, in order to keep the water at the same height : it is said that in the performance of these buildings every one knows his proper business and station ; and that they set overseers to beat and punish the idle, and teach or direct the inexperienced young ones. The Beaver is about the size of the badger ; his head short, his ears round and small, his two fore teeth long, sharp, and strong, well calculated for the business which Nature has destined him to. The tail of this creature answers the double purpose of a wheelbarrow, to carry the mortar and clay, and of a trowel, to beat and shape it. It is of an oval form, and covered with a scaly skin.

The houses are constructed, with the utmost ingenuity, of earth, stones, and sticks, cemented together, and plastered in the inside with surprising neatness. The walls are about two feet thick ; and the floors so much higher than the surface of the water, as always to prevent them from being flooded. Some of the houses have only one floor ; others have three. The number of Beavers in each house is from two to thirty. These sleep on the floor, which is strewed with leaves and moss ; and each individual is said to have its own place. When they form a new settlement, the animals begin to build their houses in the summer ; and it costs them a whole season to finish the work, and lay in their winter provisions : these consist principally of bark and the tender branches of trees, cut into certain lengths, and piled in heaps under the water. The houses have each no more than one opening, which is under the surface of the water, and always below the thickness of the ice. By this means they are secured from the effects of frost.

In one of his excursions into the northern parts of

Louisiana, M. du Pratz (who resided sixteen years in that country) gives us an account of a colony of Beavers, to many of whose operations he was himself a witness. At the head of one of the rivers of Louisiana, in a very retired place, M. du Pratz found a Beaver-dam. Not far from it, but hidden from the sight of the animals, he and his companions erected a hut, in order to watch the operations of these creatures at leisure. They waited till the moon shone bright, and then, carrying in their hands branches of trees, in order to conceal themselves, they went with great care and silence to the dam. M. du Pratz ordered one of the men to cut, as silently as possible, a gutter, about a foot wide, through it, and to retire immediately to the hiding-place. "As soon as the water through the gutter began to make a noise," says this writer, "we heard a Beaver come from one of the huts and plunge in. We saw him get upon the bank, and clearly perceived that he examined it. He then, with all his force, gave four distinct blows with his tail, when immediately the whole colony threw themselves into the water and went to the dam. As soon as they were assembled, one of them appeared, by muttering, to issue some kind of orders, for they all instantly left the place and went out on the banks of the pond in different directions. Those nearest to us were between our station and the dam, and therefore we could observe their operations very plainly. Some of them formed a substance resembling a kind of mortar; others carried this on their tails, which served as sledges for the purpose. I observed that they ranged themselves two and two, and that each animal of every couple loaded his fellow. They trailed the mortar, which was pretty stiff, quite to the dam, where others were stationed to take it; these put it into the gutter, and rammed it down with blows of their tails. The noise of the water soon ceased, and the breach was

completely repaired. One of the Beavers then struck two blows with his tail, and instantly they all took to the water without any noise, and disappeared." M. du Pratz and his companions afterwards retired to their hut to rest, and did not again disturb the animals till the next day. In the morning, however, they went to the dam, to see its construction; for which purpose it was necessary that they should cut part of it down. The depression of the water in consequence of this, together with the noise they made, roused the Beavers again. The animals seemed much agitated; and one of them, in particular, was observed several times to approach the labourers, as if to examine what passed. As M. du Pratz apprehended that they might run into the woods if further disturbed, he advised his companions again to conceal themselves.

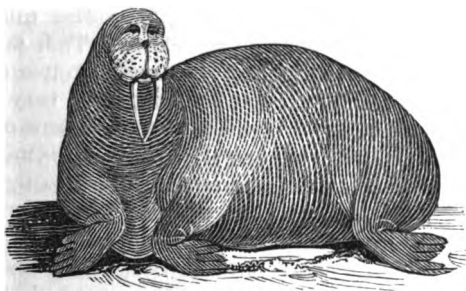
"One of the Beavers," continues our narrator, "then ventured to go upon the breach, after having several times approached and returned like a spy. He surveyed the place, and struck four times, as he had done the preceding evening, with his tail. One of those that were going to work, passed close by me; and as I wanted a specimen to examine, I shot him. The noise of the gun made all the rest scamper off with greater speed than a hundred blows of the tail of the overseer could have done." By firing at them several times afterwards, the animals were compelled to run with precipitation into the woods. M. du Pratz then examined their habitations. Under one of the houses he found fifteen pieces of wood, with the bark in part gnawed off, apparently intended for food. And, round the middle of this house, which formed a passage for the Beavers to go in and out at, he observed no fewer than fifteen different cells. The Beaver is common in Canada and in Languedoc, and may be classed among amphibious animals.



THE BAT,

A SINGULAR genus of animals, partaking of the nature of both quadrupeds and birds, appears to be the link which unites these two classes together. The common Bat is much like a mouse, except that he has leathern wings, that will support him in the air for the space of about an hour, after which he must cling to some wall or stump of a tree, to rest himself. Like other quadrupeds, the Bat is viviparous; she brings forth from two to five young, and suckles them with her two teats, which, as in the human species, are placed very high on the breast. The eddies and circumvolutions of the Bat's flight around the romantic ruins of some old castle or abbey, on a beautiful summer evening, are amusing to the imagination, and accord perfectly with the melancholy mood of the mind in such places and at such an hour. This creature lives not long, and the most part of its life, short as it is, is wasted in laziness and sleep; it passes the whole winter in a dormant state, and even in summer never ventures out but in a fine and warm evening, being much afraid of being caught in the rain. It is very harmless, and destroys a great quantity of gnats, moths, and other troublesome and noxious insects.

Mr. White, in his *Natural History of Selborne*, gives the following account of a tame Bat:—"It would take flies," says he, "out of a person's hand. If any thing were given it to eat, it brought its wings round before the mouth, hovering and hiding its head, in the manner of birds of prey when they feed. The adroitness it showed in shearing off the wings of flies, which it rejected, was worthy of observation, and pleased me much. Insects seemed to be most acceptable, though it did not refuse raw flesh when offered; so that the notion of bats going down chimneys and gnawing bacon, seems no improbable story. While I amused myself with this wonderful quadruped, I saw it several times confute the vulgar opinion that Bats, when down on a flat surface, cannot get on the wing again, by rising with great ease from the floor. It ran, I observed, with more dispatch than I was aware of, but in a most grotesque and ridiculous manner."



THE WALRUS, OR SEACOW.

THIS amphibious quadruped lives with equal ease in the depth of the seas and on land; he is a link between the inhabitants of the water and the animals that feed on the shore, and may be considered as belonging to

both in the uninterrupted chain of natural beings. The Walrus, improperly denominated "Seacow," is of a very considerable size, being sometimes eighteen feet in length, and twelve in circumference at the thickest part. He has two large tusks in the upper jaw; they are inverted, the points nearly uniting, and sometimes exceed twenty-four inches in length: the use which the animal makes of them is not easily explained, unless they help him to climb up the mountains of ice, among which he takes his abode, as the parrot employs his beak to get upon his perch. However, they are equal for durability and whiteness to those of the elephant, and, keeping their colour much longer, are preferred by dentists to replace, in the mouth of the fair, what age or accidents have destroyed.

The Walrus is common in some of the northern seas, and often attacks a boat full of men. He is a gregarious animal, and shows a great deal of boldness and intrepidity when wounded. They are often found in herds, sleeping and snoring on the icy shores, and when alarmed they precipitate themselves into the water with great bustle and trepidation. They feed on shellfish and sea weeds, and yield a sort of oil equal in goodness to that of the whale. The white bear is its greatest enemy. In the combats between these animals, the Walrus is said to be generally victorious, on account of the desperate wounds it inflicts with its teeth.

BOOK II.

BIRDS.



THE EAGLE.

But who the various nations can declare,
That plough with busy wing the peopled air ?
These cleave the crumbling bark for insect food,
Those dip the crooked beak in kindred blood ;
Some haunt the rushy moor, the lonely woods ;
Some bathe their silver plumage in the floods ;
Some fly to man, his household gods implore,
And gather round his hospitable door,
Wait the known call, and find protection there
From all the lesser tyrants of the air.
The tawny Eagle seats his callow brood
High on the cliff, and feasts his young with blood.

BARBAULD.

THIS bird seems to enjoy a kind of supremacy over the rest of the inhabitants of the air. The mythologists placed him at the side of Jupiter, and intrusted to

him the thunderbolts of heaven. The Roman legions followed the representation of the Eagle over all the provinces of the three parts of the world then known, and even now this bird is the principal armorial bearing of several kingdoms of Europe. The loftiness of his flight merited him a place on the side of the most sublime of the scriptural writers, St. John the Evangelist.

Bird of the broad and sweeping wing,
Thy home is high in heaven,
Where wide the storms their banners fling,
And the tempest's clouds are driven.
Thy throne is on the mountain top,
Thy fields the boundless air;
And hoary peaks, that proudly prop
The skies, thy dwellings are.

The *Golden Eagle* is, in length, from the point of the beak to the end of the tail, about three feet nine inches; the breadth, when his wings are extended, is eight spans. The beak is horny, crooked, and very strong. The feathers of the neck are of a rusty colour, and the rest nearly black with lighter spots. Providence seems to have delighted in working the mechanism of the Eagle's eye, in order to give his sight the greatest perfection required for the purpose it was intended for: he has a double pair of eyelids, which move independently of each other, and, by covering his eye with the innermost of these, he is able to gaze steadfastly upon the sun without blinking. The feet are feathered down to the claws, which have a wonderful grasp; the leg is yellowish, and his four talons are crooked and strong.

Eagles are remarkable for their longevity, and their faculty of sustaining a long abstinence from food. Keytler relates that an Eagle died at Vienna after a confinement of one hundred and four years, which justifies the allusion in Psalm ciii. v. 5. and the etymology of the Greek name. The Eagle is found in Great

Britain and Ireland, in Germany, and nearly all parts of Europe. He is carnivorous, and, when unable to obtain the flesh of larger animals, he feeds on serpents and lizards. The story of the Eagle, brought to the ground after a severe conflict with a cat which it had seized and taken up into the air with its talons, is very remarkable; Mr. Barlow, who was an eye-witness of the fact, made a drawing of it, which he afterwards engraved. Two instances have occurred in Scotland of the Eagle having flown away with infants to its nest: in both cases the theft was discovered, so that the children were not materially injured. This noble bird has been often tamed, but in this situation it still preserves an innate love of liberty. The nest of the Eagle is composed of strong sticks, covered with rushes, and generally built on the point of an inaccessible rock, whence it darts upon its prey with the rapidity of lightning. The period of incubation is said to be thirty days; and when the young are hatched, both the male and female exert all their industry to provide for their wants. In the county of Kerry, a peasant once formed the resolution of plundering an Eagle's nest, built upon a small island in the beautiful lake of Killarney. He accordingly swam to the island while the parents were away; and, after robbing the nest of its young, he was preparing to swim back, with the eaglets tied in a string; but while he was yet up to the chin in the water, the old eagles returned, and, missing their family, fell upon the invader with such fury, that, in spite of all his resistance, they dispatched him with their beaks and talons.



THE OSPREY, OR SEA EAGLE.

UNDER the name Osprey have been confounded the Osprey properly so called, the *Falco Ossifragus*; and the Sea Eagle, *Falco Haliaetos*, commonly called the *Bald Buzzard*. The latter is about three feet long from the point of the beak to the end of the talons, and nine spans broad from tip to tip of the wings. The bill resembles that of the golden Eagle, and from the chin hang small hairy feathers, imitating a beard, whence he is called by some the bearded Eagle. The feathers of the whole body are party-coloured, being whitish, duskish, and rusty; his legs are almost wholly covered with dusky feathers, somewhat inclining to yellow. The whole of the body is covered, also, near the skin, with a kind of down, white and soft, like that

of the swan. This bird builds his nest on some romantic cliffs by the sea-shores, and feeds entirely upon fish.

High o'er the watery uproar silent seen
Sailing sedate in majesty serene,
Now 'midst the pillar'd spray sublimely lost,
And now emerging, down the rapids toss'd
Glides the Bald Eagle, gazing calm and slow
O'er all the horrors of the scene below :
Intent alone to sate himself with blood,
From the torn victims of the raging flood.

The *Black Eagle* is about twice as large as a raven. The parts about the beak and the eye are bare of feathers, and somewhat reddish ; the head, neck, and breast, black ; in the middle of the back, between the shoulders, he has a large white spot dashed with red ; a black streak sweeps along the feathers, and is followed by a white one ; the remaining part of the wing, to the tip, is of a dark ash colour. This bird has beautiful hazel eyes, full of animation ; his legs are feathered down a little below the knees, the naked part being red ; his talons are very long. He is found in France, Germany, Poland, and delights in Alpine mountains, where he makes the vales and woods resound with his incessant screamings when in search of prey.

The Abbé Spallanzani had an Eagle of this species so powerful as to be able to kill dogs that were much larger than itself. When a dog was placed before it, the bird would ruffle up the feathers in its head and neck, cast a dreadful look at its victim, take a short flight, and immediately light on his back. It held the head firmly with one foot, and thus secured the dog from biting, and with the other grasped one of his flanks, at the same time driving its talons into the body ; and in this attitude it continued, till the dog expired with fruitless outcries and efforts.



THE CONDUR.

THIS bird considerably exceeds in size the largest eagle. Its expanded wings sometimes extend to the dimensions of eighteen feet. Its body, bill, and talons are proportionally large and strong: and its courage is equal to its strength. The throat is naked and of a red colour. The upper parts in some individuals (for they differ greatly in colour) are variegated with black, gray, and white; and the belly is scarlet. Round the neck it has a white ruff, much resembling a lady's tippet. The feathers on the back are generally quite black, and perfectly bright. These enormous animals, which are inhabitants of South America, make their

nests among the highest and most inaccessible rocks. The female lays two white eggs, somewhat bigger than those of a turkey. Some writers have affirmed that the Condur is twice as large as an eagle, and so strong that it can pounce upon and devour a whole sheep; that it spares not even stags, and can easily overthrow a man. Others say that its beak is so firm that it can pierce a cow's hide, and that two Condurs are able to kill an ox and devour the carcass. They are sometimes caught by a person covering himself with the hide of a newly skinned animal, and when attacked by the Condur in this disguise, other persons that have hidden themselves, come forward to his assistance, and all together fall on the bird, overpower, and kill him. It has generally been imagined that the accounts of this dreadful animal gave rise to the exaggerated description of the bird that makes so conspicuous a figure in the Arabian Nights, under the name of Roc; but this seems very improbable, as we have no satisfactory evidence of the Condur having ever been found on the old continent. The traditions respecting the Roc originated in a very different bird, a variety of the bearded eagle, or the well known lammer-geyer of the Alps, which is occasionally seen among the mountains of the East.

The Condur usually keeps in the mountains, where it finds its prey, and never descends to the seashore but in the rainy season; for as they are very sensible of cold, they go there for greater warmth. Condamine says he has frequently seen these birds in several parts of the mountains of Quito, hovering over a flock of sheep; and he thinks they would at a certain time have attempted to carry one off, had they not been scared away by the shepherds. The Spaniards themselves dread their depredations, and instances are frequent in that country of their taking away children.

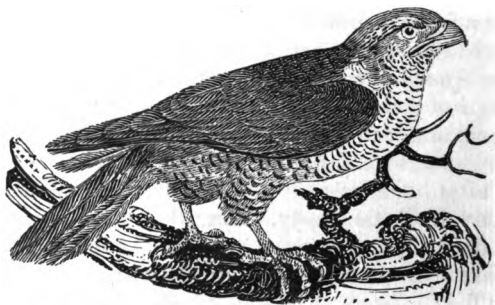


THE BUZZARD

Is a rapacious bird, of the long-winged hawk kind, and the most common of all in England. He is of a sluggish indolent nature, often remaining perched on the same bough for the greatest part of the day; as if, indifferent either to the allurements of food or of pleasure, he were doomed, like some of the human species, to pass his allotted span of life in passive contemplation. He feeds on mice, rabbits, frogs, and often on all sorts of carrion. Too idle to build himself a nest, he generally seizes upon the old habitation of a crow, which he lines afresh with wool and other soft materials. It is said, that the male, feeling a noble passion for the preservation of his young, will often rear them, if the female happen to be killed. In general this bird, whose colour varies considerably, is brown, varied with yellow specks; at a certain age his head becomes entirely gray. The female generally lays two or three eggs, which are mostly white, though sometimes spotted

with yellow. The common length of this bird is twenty-two inches, and his breadth upwards of fifty.

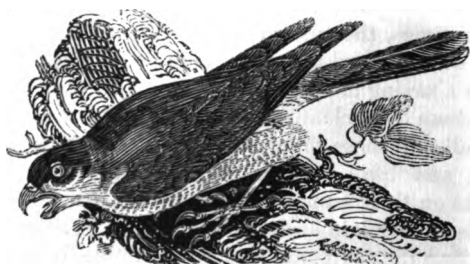
The following anecdote, related by Buffon, will show that the Buzzard may be so far tamed as to be rendered a faithful domestic. A gentleman had a Buzzard brought to him that had been caught in a snare, which he undertook to tame. It was at first wild and ferocious, but he succeeded by leaving it to fast, and constraining it to come and eat out of his hand. By pursuing this plan, he brought it to be very familiar; and, after having shut it up about six weeks, he began to allow it a little liberty, taking the precaution, however, to tie both pinions of its wings. In this condition it walked out into his garden, and returned when called to be fed; after some time, thinking he might trust to its fidelity, he removed the ligatures, and fastened a small bell above its talon, and also attached to its breast a bit of copper with his name engraved on it. He then gave it entire liberty, which it soon abused; for it took wing and flew into the forest of Belesme. The bird was given up for lost; but four hours afterwards, it rushed into the gentleman's hall, pursued by five other Buzzards, which had constrained it to seek again its asylum. After this adventure it preserved its fidelity, coming every night to sleep under the window. It soon became familiar, attended constantly at dinner, sat on a corner of the table, and often caressed its master with its head and bill, emitting a weak, sharp cry, which, however, it sometimes softened. It had a singular propensity of seizing from the head, and flying away with the red caps of the peasants; and so alert was it in whipping them off, that they found their heads bare without knowing what was become of their caps: it even treated the wigs of the old men in the same way, hiding its booty in the tallest trees.



THE GOSHAWK

BREEDS in lofty trees in Scotland, and destroys a great quantity of small game, which he seizes with his sharp and crooked talons, and carries to his nest. He is somewhat larger than the common buzzard, of the falcon tribe; his bill is blue, and a white stripe runs over each eye; there is also a large white spot on each side of the neck. The general colour of the plumage is deep brown; the breast and belly white transversely streaked with black; and the legs yellow. The Goshawk is found in France and Germany; it is not very common in this country, but is more frequent in Scotland. In Chinese Tartary there is a variety which is mottled with brown and yellow. They are said to be used by the emperor of China in his sporting excursions, when he is usually attended by his great falconer, and a thousand of inferior rank. Every bird has a silver plate fastened to its foot, with the name of the falconer who has the charge of it, that, in case it should be lost, it may be restored to the proper person; but

if it should not be found, the name is delivered to another officer, called the guardian of lost birds, who, to make his situation known, erects his standard in a conspicuous place among the army of hunters. In former times, the custom of carrying a Hawk on the hand was confined to men of high distinction; so that it was a saying among the Welsh, "You may know a gentleman by his Hawk, horse, and greyhound." Even the ladies in those times were partakers of this gallant sport, and have been represented in pictures with Hawks on their hands. At present this noble diversion is wholly laid aside in this country. The expense attending the sport was very considerable, which confined it to princes and men of the highest rank. In the time of James the First, Sir Thomas Monson is said to have given a thousand pounds for a cast of Hawks. In the reign of Edward the Third it was made felony to steal a Hawk; to take its eggs, even in a person's own grounds, was punishable with imprisonment for a year and a day, together with a fine at the king's pleasure. Such was the delight our ancestors took in this royal sport, and such were the means by which they endeavoured to secure it. The Falcons, or Hawks, chiefly used in these kingdoms were the present species, the Falcon, the Peregrine Falcon, Iceland Falcon, and the Ger Falcon. The game usually pursued were cranes, wild geese, pheasants, and partridges. The duke of St. Albans is still hereditary grand falconer of England, but the office is not now exercised.



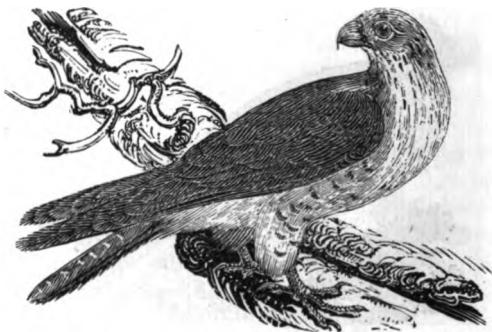
THE SPARROWHAWK,

THE *Accipiter* of the ancients, and the *Epervier* of the French, is a spirited, handsomely shaped bird, about as big as a large wood pigeon; his beak is short, crooked, and of a bluish tint, but very black towards the tip; the tongue black and a little cleft; the eyes of a mean size. The crown of the head is of a dark brown; above the eyes, in the hinder part of the head, sometimes are white feathers; the roots of the feathers of the head and neck are white; the rest of the upper side, back, shoulders, wings, and neck, of a dark brown. The wings, when closed, scarcely reach to the middle of the tail; the thighs are strong and fleshy, the legs long, slender, and yellow; the toes also long, and the talons black. The female, which is, as in other birds of prey, much larger than the male, lays about five eggs, spotted near the blunt end with blood-red specks. When wild, they feed only upon birds, and possess a boldness and courage above their size; but in a domestic state they do not refuse raw flesh and mice.



THE KITE

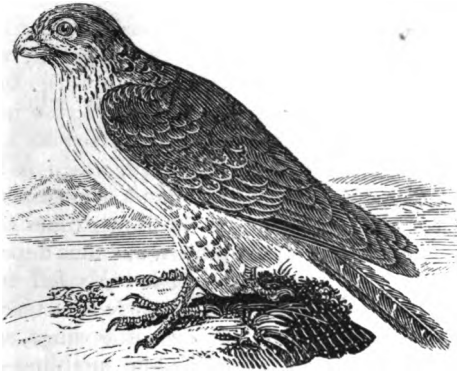
Is of the hawk kind, but of an ignoble class. He is easily distinguished from any other birds of prey by his forked tail, and the slow and circular eddies he describes in the air, whenever he spies, from the regions of the clouds, a young duck or a chicken, strayed too far from the brood; which, pouncing on it with the rapidity of a dart, he seizes in his talons, and carries up to destroy without mercy. He is larger than the common buzzard; and though he weighs somewhat less than three pounds, the extent of his wings is more than five feet. The head and back are of a pale ash colour, varied with longitudinal lines across the shafts of the feathers; the neck is reddish; the lesser rows of the wing feathers are party-coloured, of black, red, and white; the feathers covering the inside of the wings are red, with black spots in the middle. The eyes are large, the legs and feet yellow, the talons black.



THE FALCON

Is a predaceous bird, of which there are several species. The *Gerfalcon* is found in the northern parts of Europe; and, next to the eagle, it is the most formidable, the most active, and the most intrepid of all voracious birds, and is the dearest and most esteemed for falconry. The bill is crooked and yellow; the irides of the eye dusky; and the whole plumage of a whitish hue, marked with dark lines on the breast, and dusky spots on the back.

The *Peregrine Falcon* is as large as the moor buzzard. The bill is blue at the base, and black at the point; the head, back, scapulars, and coverts of the wings, are barred with deep black and blue; the throat, neck, and upper part of the breast, are white, tinged with yellow; the bottom of the breast, belly, and thighs, are of a grayish white; and the tail is black and blue. They breed among the rocks of Caernarvonshire, and in the north of Scotland.



THE MOUNTAIN FALCON

Is about the size of the Goshawk, but of a thicker body. The head is covered with cinereous feathers, mixed with black; the throat and part of the breast are spotted with ash colour; and the body is of a dark reddish brown, marked with small white lines.

The *Red Indian Falcon* is about the bigness of the Mountain Falcon. The bill is cinereous, the cere yellow; the back and wings of a reddish hue; the breast and belly of a mixture of ash colour and brown; and an oblong reddish spot proceeds from the interior corner of each eye. It is a handsome bird, and he shares with all the kind that keenness of sight, which is so useful to them, in singling out their devoted prey from the regions of the air, down to the darkest thickets of the woods. Several of the Falcons and Hawks were formerly trained to kill birds for their keepers; and different names were given to the same species at

different ages, as is still practised with respect to other domesticated animals.

In Syria there is a small variety of the Gentil Falcon, which the inhabitants call Shaheen, and which is of so fierce and courageous a disposition, that it will attack any bird, however large or powerful, which presents itself. "Were there not," says Dr. Russel, in his Account of Aleppo, "several gentlemen now in England to bear witness to the fact, I should hardly venture to assert that, with this bird, which is about the size of a pigeon, the inhabitants sometimes take large eagles. This Hawk was in former times taught to seize the eagle under the pinion, and thus depriving him of the use of one wing, both birds fell to the ground together; but the present mode is to teach the Hawk to fix on the back, between the wings, which has the same effect, only that the bird tumbling down more slowly, the falconer has more time to come to his Hawk's assistance; but in either case, if he be not very expeditious, the Falcon is inevitably destroyed. I never saw the Shaheen fly at eagles, that sport having been disused before my time; but I have often seen him take herons and storks. The Hawk, when thrown off, flies for some time in a horizontal line, not six feet from the ground; then mounting perpendicularly, with astonishing swiftness, he seizes his prey under the wing, and both together come tumbling to the ground."



THE MERLIN

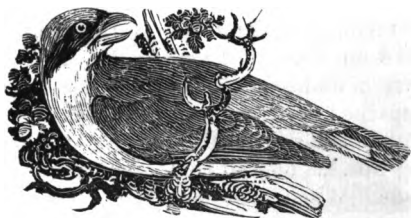
Is the least of the hawk species, and, as his name implies, is not very different in size from the black-bird; the word Merlin signifying in French a small *merle*, or blackbird. However, he is one of the best birds our falconers used for hawking. The male is also smaller than the female, as in the other kinds, and is noted for his boldness and spirit, often attacking and killing at one stroke a full-grown partridge or a quail. The back of this bird is party-coloured, of dark blue and brown; the flag feathers of the wings black, with rusty spots; the train is about five inches long, of a dark brown or blackish colour, with transverse white bars: the breast and belly down is of a dirty white, interspersed with brown spots: the legs are long, slender, and yellow; the talons black. The head is encircled with a row of yellowish feathers, not unlike a coronet. In the male the feathers on the rump, next the tail, are bluer; a mark by which, as well as by his size, the falconers easily discern the sex of the bird.



THE BUTCHER-BIRD,

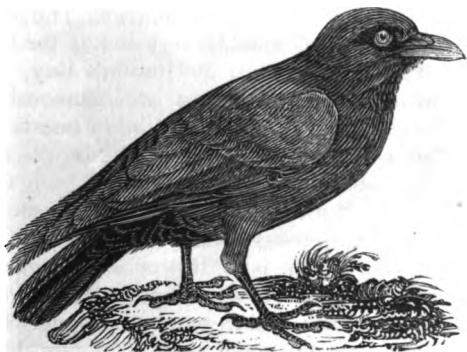
ALSO called the *Ninekiller*, and of the shrike tribe, is known in the north of England by the name of *Wary-angle*. It is said that he catches small birds to the number of nine, and affixes them to a thorn, one after another; and that when he has completed the number nine, he begins to tear them in pieces in order to eat them. But this story carries with itself proofs of its falsity. Would a hungry bird refrain from satisfying his appetite till he has ranged his victims in a row, and not touch any of them till a certain number is attained? The fact is, that this small bird is so courageous, that he will attack, combat, and kill much bigger birds than himself; and that to manage his tearing them with more ease, he hangs them on a thorn, as a butcher does his beasts on a hook, and dilaniates them at pleasure; from which circumstance the French call him the *Lanier*, from the Latin *Lanius*, "a butcher." In America, the Great Shrike has been observed to adopt an odd stratagem, for the apparent purpose of decoying its prey. A gentleman there, accidentally observing that several grasshoppers were stuck upon the sharp

thorny branches of the trees, inquired the cause of the phenomenon, and was informed that they were thus spitted by this bird. On further inquiry he was led to suppose that this was an instinctive stratagem adopted by the Shrike, in order to decoy the smaller birds, which feed on insects, into a situation from which he could dart on and seize them. In spring and summer he imitates the voices of other birds by way of alluring them within his reach that he may devour them; excepting this, his natural note is the same throughout all seasons. When kept in a cage, even where he seems most contented, he is always mute. His head, back, and rump are ash coloured; the chin and belly white; the breast and lower part of the throat varied with dark lines, crossing each other; the tips of the feathers of the wings are for the most part white; he has a black spot by the eye; the utmost feathers of the male are all over white; the two middlemost have only their tips white, the rest of the feathers being black, as well as the legs and feet. He builds his nest among thorny shrubs and dwarf trees, and furnishes it with moss, wool, and downy herbs, where the female lays five or six eggs. A peculiarity belonging to the birds of this kind is, that they do not, like others, expel the young ones from the nest, as soon as they can provide for themselves, but the whole brood live together in one family. The Butcher-bird will chase all the small birds upon the wing, and will sometimes venture to attack partridges, and even young hares. Thrushes, blackbirds, and such like, are their common prey; they fix on them with their talons, split the skull with their bill, and feed on them at leisure. It is easy to distinguish these birds at a distance, not only from their going in companies, but also from their manner of flying, which is always up and down, seldom in a direct line, or obliquely.



THE LITTLE BUTCHER BIRD,

CALLED, in Yorkshire, *Flusker*, is about the size of a lark, with a large head. About the nostrils and corners of the mouth he has black hairs or bristles; and about the eyes a large black longitudinal spot; the back and upper side of the wings are of a rusty colour; the head and rump cinereous; the throat and breast white, spotted with red. He builds his nest of grass; and the female lays six eggs, nearly all white, except at the blunt end, which is encircled with brown or dark red marks. The female is somewhat larger than the male; the head is of a rust colour, mixed with gray; the breast, belly, and sides of a dirty white; the tail deep brown; the exterior web of the outer feathers white. Its manners are similar to the last named. It frequently preys on young birds, which it takes in the nest; it likewise feeds on grasshoppers, beetles, and other insects. Like the last, it imitates the notes of other birds, in order the more surely to decoy them.—When sitting on the nest, the female soon discovers herself at the approach of any person, by her loud and violent outcries.



THE RAVEN

Is upwards of two feet in length, and above four in breadth. His weight is about three pounds. The bill is strong, black, and hooked. The plumage of the whole body of a shining black, glossed with deep blue; yet the black of the belly inclines to a dusky colour. He is of a strong and hardy disposition, and inhabits all climates of the globe. He builds his nest in trees; and the female lays five or six eggs of a palish green colour, spotted with brown. The life of this bird extends to a century; and above, if we can believe the accounts of several naturalists on the subject. The Raven unites the voracious appetite of the crow to the dishonesty of the daw, and the docility of almost every other bird. He feeds chiefly on small animals; and is said to destroy rabbits, young ducks, and chickens, and sometimes even lambs, when they happen to be dropped in a weak state. In the northern regions, he preys in concert with the white bear, the arctic fox,

and the eagle. He devours the eggs of other birds, and eats shore-fish and shell-fish; with the latter he soars into the air, and drops them from on high to break the shells, and thus to get at the contents. The faculty of scent in these birds must be very acute; for in the coldest of the winter days, at Hudson's Bay, when every kind of effluvia is almost instantaneously destroyed by the frost, buffaloes and other beasts have been killed where not one of these birds was seen; but in a few hours, scores of them have been found collected about the spot, to pick up the blood and offal. The Raven possesses many diverting and mischievous qualities; he is active, curious, sagacious, and impudent; by nature a glutton, by habit a thief, in disposition a miser, and in practice a rogue. He is fond of picking up any small piece of money, bits of glass, or any thing that shines, and conceals it carefully under the eaves of roofs, or in any other inaccessible place. This propensity, which he shares with the crow, the magpie, and the daw, is the more inexplicable, as the object of his cupidity is of no sort of use to him. He is easily tamed, and may be instructed, like the hawk, for the diversion of the chase. He fetches and carries like the spaniel; and, like the parrot, can imitate the human voice. He was the armorial bearing of the Danish kings of old; and is mentioned in the Scripture, where his young are represented claiming support from the hand of their Creator. The croaking of the Raven is extremely disagreeable, and it was formerly considered a note of ill omen,—

Seems he not, Malice, like a ghost
That hovers o'er a slaughter'd host?
Or Raven on the blasted oak,
That, watching while the deer is broke,
His morsel claims with sullen croak?

SCOTT.

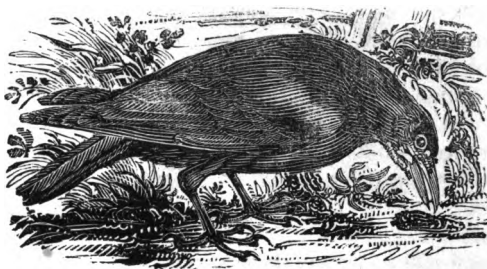


THE CROW

Is less in size than the raven. The bill is strong, thick, and straight. The general colour is black, except the bottom of the feathers, which has a grayish tint. His delight is to feed upon carcasses and dead animals, or malefactors exposed on the gibbet. Like the raven, he has a very sagacious scent, and is said to smell gunpowder afar off. He roosts upon trees, and takes both animal and vegetable food. Like the rooks, the Crows are gregarious, and often fly in large companies in the fields or in the woods. They are great destroyers of partridges, as they generally pierce their eggs with their bill, and carry them in that manner through the air, to a great distance, to feed the cravings of their young. The female lays five or six eggs.

Mr. Montagu states that he once saw a Crow in pursuit of a pigeon, at which it made several pounces like a hawk; but the pigeon escaped by flying in at the door of a house. He saw another strike a pigeon dead from the top of a barn. He is so bold a bird, that

neither the kite, the buzzard, nor the raven approach his nest without being driven away. When he has young ones, he will even insult the peregrine falcon ; and at a single pounce will bring that bird to the ground.



THE ROOK.

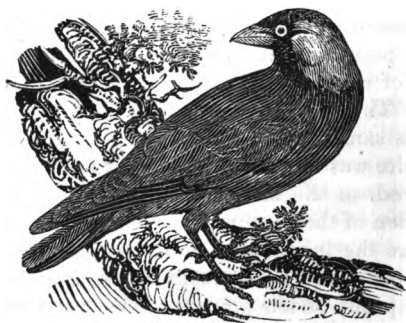
THE cawing of these birds, on the tops of high trees, near gentlemen's houses, and in the middle of cities, is not very pleasing ; yet old habits, to which we are reconciled, have as much influence upon us, as if they were productive of amusement. Hence it has been seldom attempted to destroy a rookery ; although the noise, and other inconveniences, that accompany these birds, render their vicinity often troublesome. They feed entirely on corn and insects, and are little bigger than the common crows. In Suffolk, and in some parts of Norfolk, the farmers find it their interest to encourage the breed of Rooks, as the only means of freeing their grounds from the grub which produces the cockchafer, and which in this state destroys the roots of corn and grass to such a degree, that instances have been known where the turf of pasture land might be turned up with the foot. Their young are good

eating, and are generally skinned before they are dressed. The colour is black, but brighter than that of the crow, which the Rook resembles in shape. The female lays the same number of eggs; and the male shares with her the trouble of fetching sticks, and interweaving them to make the nest, an operation which is attended with a great deal of fighting and disputing with the other Rooks.

New comers are often severely beaten by the old inhabitants, and are even frequently driven quite away; of this an instance occurred near Newcastle, in the year 1783. A pair of Rooks, after an unsuccessful attempt to establish themselves in a rookery at no great distance from the Exchange, were compelled to abandon the attempt, and take refuge on the spire of that building; and, though constantly interrupted by other Rooks, they built their nest on the *top of the vane*, and reared their young ones, undisturbed by the noise of the populace below. The nest and its inhabitants were of course turned about by every change of the wind! They returned and built their nest every year on the same place, till 1793, soon after which year the spire was taken down. A small copperplate was engraved, of the size of a watch-paper, with a representation of the spire and the nest; and so much pleased were the inhabitants and other persons with it, that as many copies were sold as produced to the engraver a profit of ten pounds. The wood cut by Bewick, in the titlepage to his *Select Fables*, gives a view of the old Exchange, with the Rook's nest on the vane.

It is amusing to see them coming at sunset, as thick as a cloud, hovering over a grove, and, after several eddies described in the air, and incessant cawings, each repairing to his own nest, and settling in a few minutes to rest, till the dawn calls them up again to their pasture in the neighbouring fields.

Dr. Darwin has remarked, that a consciousness of danger from mankind is much more apparent in Rooks than in most other birds. Any one who has in the least attended to them will see that they evidently distinguish that the danger is greater when a man is armed with a gun, than when he has no weapon with him. In the spring of the year, if a person happen to walk under a rookery with a gun in his hand, the inhabitants of the trees rise on their wings, and scream to the unfledged young to shrink into their nests from the sight of the enemy. The country people, observing this circumstance so uniformly to occur, assert that Rooks can smell gunpowder.

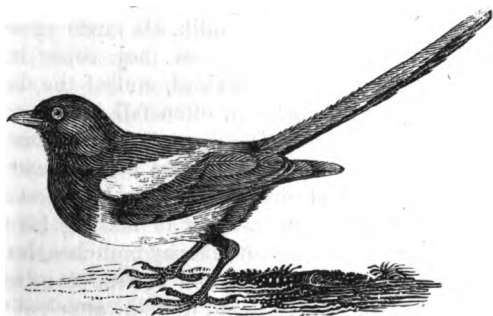


THE JACKDAW

Is much less than the crow. He has a large head and long bill, in proportion to the bigness of his body. The colour of the plumage is black, but on some parts inclining to a bluish hue; the fore part of the head is of a deeper black. He feeds upon nuts, fruits, seeds,

and insects; and builds in ancient castles, towers, cliffs, and all desolate and ruinous places. The female lays five or six eggs, smaller, paler, and marked with fewer spots than those of the crow.

Jackdaws are easily tamed, and may with a little difficulty be taught to pronounce several words. They conceal such parts of their food as they cannot eat, and often, along with it, small pieces of money or toys, frequently occasioning, for the moment, suspicions of theft in persons who are innocent. In Switzerland there is found a variety of the Jackdaw which has a white ring round its neck. In Norway, and other cold countries, they have been seen entirely white.



THE MAGPIE

RESEMBLES the daw, except in the whiteness of the breast and wings, and the length of the tail. The black of his feathers is accompanied with a changing gloss of green and purple. It is a very loquacious creature, and can be brought to imitate the human voice as well as any parrot.

Plutarch relates a singular story of a Magpie belonging to a barber at Rome. This bird could imitate, to a wonderful extent, almost every noise that it heard. Some trumpets happened one day to be sounded before the shop ; and for a day or two afterwards the Magpie was quite mute, and seemed pensive and melancholy. This surprised all who knew it ; and they supposed the sound of the trumpets had so stunned the bird, as to deprive it at the same time of voice and hearing. This, however, was not the case ; for, says this writer, the bird had been all the time occupied in profound meditation, and was studying how to imitate the sound of the trumpets : accordingly, in the first attempt, it perfectly imitated all their repetitions, stops, and changes. This new lesson, however, made it entirely forget every thing that it had learned before.

The Magpie feeds on every thing ; worms, insects, meat and cheese, bread and milk, all kinds of seeds ; and also on small birds, when they come in his way : the young of the blackbird, and of the thrush, and even a strayed chicken, often fall a prey to his rapacity. He is fond of hiding pieces of money or wearing apparel, which he carries away by stealth, and with much dexterity, to his hole. His cunning is also remarked in the manner of making his nest, which he covers all over with thorny branches, leaving only one hole for his ingress and egress, securing, in that manner, his beloved brood from the attack of their enemies.

Gisborne thus describes this lively bird, in his " Walks in a Forest :"

From bough to bough the restless Magpie roves,
And chatters as he flies.—



THE JAY

Is less than the magpie, and resembles him more in the habits of his life than in the shape and colour of his body. Talkative, and ready to imitate all sounds, as is the former, yet he can boast of ornamental colours, which the magpie is deprived of. Nothing can, on the palette of the ablest painter, equal the brightness of the chequered tablets of white, black, and blue, which adorn the sides of his wings. His head is covered with feathers, which are moveable at his will, and their motion is expressive of the internal affections of the bird, whether he is stimulated by fear, anger, or desire.

A Jay, kept by a person in the north of England, had learned, at the approach of cattle, to set a cur dog upon them, by whistling and calling him by his name. One winter during a severe frost, the dog was by this means excited to attack a cow that was big with calf, when the poor animal fell on the ice and was much hurt. The Jay was complained of as a nuisance, and its owner was obliged to destroy it.

The hen lays five or six eggs, of a dull white colour, mottled with brown.



THE CORNISH CHOUGH

Is like the jackdaw in shape and colour of body, but bigger in size. The bill and legs are in the former of a red colour, and are generally painted so in heraldry, where the bird has been for centuries a very common bearing. He is not only an inhabitant of Cornwall, but also of Wales, and of all the western coasts of England. He is generally to be found among rocks near the sea; and builds there, as well as in old ruinous castles and churches on the sea side. The voice of the Chough resembles that of the jackdaw, except that it exceeds it in hoarseness and strength.

The *Scarecrow* frequents the fens of Lincolnshire, and belongs to the tern kind. He is about the size of a blackbird. The wings are long, as compared with the size of the body. The under part of the belly is white, and the legs red; the neck, head, and back are black; the back and coverts of the wings of a gray ash colour. We have searched for the cause of this bird bearing such a name, which is generally given to any thing set up in order to frighten birds from gardens and newly sown grounds: but we must fairly confess that we have failed in our inquiries.



THE BIRD OF PARADISE

Has been called so, we may fairly suppose, on account of his being generally seen on the wing, and flying in the torrid zone at a small distance from the land. Its appearance being most welcome to the tired sailor and longing passenger, generally causes much happiness by its foretelling the vicinity of *terra firma*. The head is small, but adorned with colours which can vie with the brightest hues of the peacock's embellishments; the neck is of a fawn tint, and the body very small, but covered with long feathers of a browner hue, tinged with gold; the two middle feathers of the tail

are little more than filaments, except at the point and near the root. This bird's feathers have not only been the favourite ornament of the South American ladies for a long time, but have had also the honour of decorating the heads of our fair countrywomen.

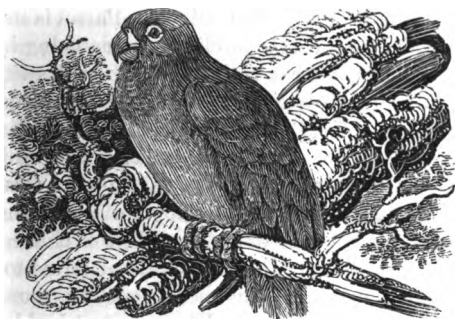


THE ROLLER

Is about the size of the jay. His bill is black, sharp, and somewhat hooked. The head is of a dirty green, mingled with blue; of which colour is also the throat, with white lines in the middle of each feather; the breast and belly are of a pale blue, like those of a pigeon; the middle of the back, between the shoulders, is red; the rump, and less coverts of the wings, are of a lovely blue; the feet are short, and, like those of a dove, of a dirty yellow colour.

The Roller is wilder than the jay, and frequents the thickest woods; it builds its nest chiefly on birch trees. Buffon says it is a bird of passage, and migrates in the months of May and September. In those countries where it is common (but so rare is it in this country that it can hardly be called a British bird), it is said to fly in large flocks in the autumn, and is

frequently seen in cultivated grounds, with Rooks and other birds, searching for worms, small seeds, roots, &c.; it likewise feeds on berries, caterpillars, and insects, and is said, in cases of necessity, to eat young frogs, and even carrion.



THE PARROT.

HAD Nature united in the same creature the shape of man, as we perceive it in some of the largest monkeys and apes; the intelligence of the elephant, who is so soon acquainted with the language of his keeper; and the faculty of speech, which she has bestowed on the Parrot; we should have been at a loss to decide, whether the curious animal were not one of a family with the human species; but her wisdom directed the operation of classing the animals in a different way: and she separated her gifts, allowing the human speech to a bird; the intelligence to a being, which, in shape, does not in the least resemble man; and refusing both to the brute that in outward appearance approaches the most to the human form. The tongue

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of the Parrot is not unlike a black soft bean, and fills so completely the capacity of his beak, that the bird can easily modulate sounds and articulate words; the beak is composed of two pieces, both moveable, which is a peculiarity belonging exclusively, it appears, to this class of creatures. The colour of the Parrot varies with the species; and Nature seems to have indulged in her most fanciful mixture of green, red, yellow, and blue, upon these birds. The bill of the Parrot is strongly hooked, and assists him in climbing, catching hold of the boughs of the trees with it, and then drawing his legs upwards; then again advancing his beak, and afterwards his feet, for his legs are not adapted for hopping from bough to bough, as other birds do. Several stories are told of the sagacity of this bird, and of the aptitude of his interrogatories and answers, but they have been no doubt the effect of chance.

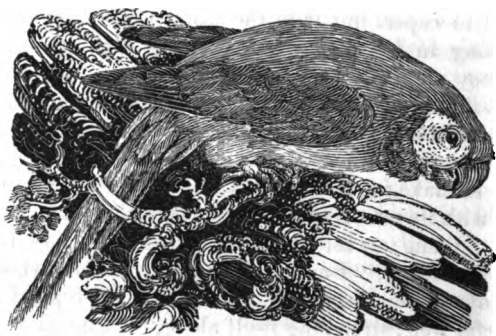
Dr. Goldsmith says that a Parrot, belonging to King Henry the Seventh, having been kept in a room next the Thames, in his palace of Westminster, had learned to repeat many sentences from the boatmen and passengers. One day sporting on its perch, it unluckily fell into the water. The bird had no sooner discovered its situation, than it called out aloud, "A boat! twenty pounds for a boat!" A waterman, happening to be near the place where the Parrot was floating, immediately took it up, and restored it to the king; demanding, as the bird was a favourite, that he should be paid the reward the bird had called out. This was refused, but it was agreed that, as the Parrot had offered a reward, the man should again refer to its determination for the sum he was to receive. "Give the knave a groat," the bird screamed aloud, the instant the reference was made.

Parrots not only imitate discourse, but also mimic gestures and actions. Scaliger saw one that performed the dance of the Savoyards, at the same time that it

repeated their song. This bird was fond of hearing a person sing; and when he saw him dance, he also tried to caper, but with the worst grace imaginable, holding in his toes, and tumbling back in a most clumsy manner.

Willoughby tells us of a Parrot, which, when a person said to it, "Laugh, Poll, laugh," laughed accordingly, and the instant after screamed out, "What a fool to make me laugh!" Another, which had grown old with its master, shared with him the infirmities of age. Being accustomed to hear scarcely any thing but the words, "I am sick;" when a person asked it, "How do you do, Poll?" "I am sick," it replied in a doleful tone, stretching itself along, "I am sick."

Parrots are very numerous in the East and West Indies, where they assemble in companies, like rooks, and build in the hollows of trees. The female lays two or three eggs, marked with little specks, like those of the partridge. They never breed in our climates, and yet live here to a great age. They feed entirely upon vegetables, yet, when tame, they take out of the mouth of their master or mistress any kind of chewed meat, and chiefly eggs, of which they seem particularly fond. They not only articulate words, but also sing verses of songs; and their memory is astonishing. They bite or pinch very hard, and some of them possess so much strength in their beak, that they could easily cut a man's finger in two, through the bone. The Parrot is sensible of attachment, as well as of revenge; and if they show, in their mimic attitudes, great pleasure at the sight of their feeders, they also fly up with anger to the face of those who once have affronted or injured them.



THE MACAW

Is the largest of the parrot kind, and painted with the finest colours Nature can bestow. The beak is uncommonly strong; and the tail proportionally longer than that of any parrots. His voice is fierce and tremulous, sometimes sounding like the laugh of an old man; and it seems to utter the word "Arara," which occasioned his going by that name in his native country. The Macaw of St. Domingo is of a fine red colour, except some blue and yellow feathers about the wings. The flesh of this bird is much esteemed as an article of food in that island.

When tame, it eats almost every article of human food. It is particularly fond of bread, beef, fried fish, pastry, and sugar. It cracks nuts with its bill, and picks the kernels out dexterously with its claws. It does not chew the soft fruits, but it sucks them by pressing its tongue against the upper part of the beak: and the harder sort of food, such as bread and pastry, it bruises or chews, by pressing the tip of the lower upon the most hollow part of the upper mandible.



THE PARROQUET

Is less than the common parrot, and furnished with a longer tail. There are several varieties of this bird, whose habits and qualities are similar to those of the parrot. They are even more easily tamed ; and, although they are not allotted so great a faculty of speech, they are the amusement of sedentary ladies in all countries.



THE RING PARROQUET.

This is the first of the species of that name, and is supposed to have been the only one known to the ancients, from the time of Alexander the Great down to the age of Nero ; but this opinion cannot be easily

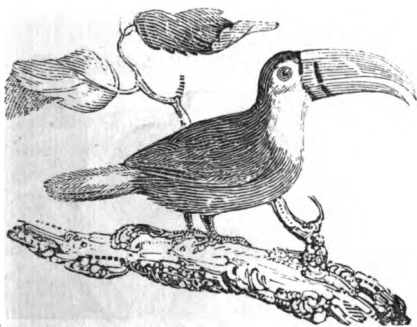
maintained, as the communication with the East Indies, of which they are natives, was not much intercepted in that lapse of years. The bird is about fifteen inches long; his bill is thick, and all over red; the head and the body green; but the neck, breast, and the whole of the under side more faint or pale; the other parts deeper coloured. He has a red circle, or ring, which encompasses the back of the neck; and is, behind, about the breadth of a man's little finger; but grows narrower by degrees towards the sides, and ends under the lower chap of the bill. The belly is of so faint a green, that it seems almost yellow. The tail is also of a yellowish green: the legs and feet are ash-coloured.



THE COCKATOO

BELONGS to the same family of birds, and is distinguished from the parrots, and all others, by a beautiful crest, composed of a tuft of elegant feathers, which he can raise or depress at pleasure. We meet with some of a beautiful white plumage, and the inside

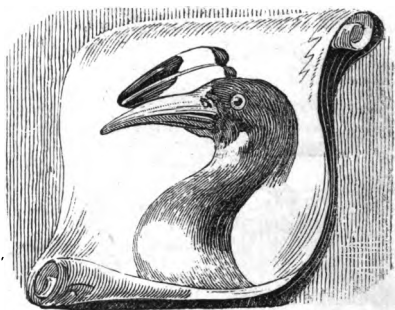
feathers of the crest of a pleasing yellow colour, with a spot of the same under each eye, and one upon the breast. This bird often repeats the word, from which he has received his name, but can also imitate the human voice.



THE TOUCAN

Is a native of South America, very conspicuous for the bigness and shape of his bill. He is about the size of the magpie, but his beak alone is nearly as big as the rest of the body; the head is large and strong, and the neck short, in order the more easily to support the bulk of such a beak. The head, neck, and wings are black; the breast shines with a most lovely saffron colour, with a certain redness near the beginning; the belly and thigh with a most beautiful vermilion; the tail is black, but of a bright red at the end. The monkeys are his sworn enemies; they often attack his nest, but Providence has allotted him a head and a beak of such a size, as to fill up the whole entrance of his habitation; and when the plunderer approaches,

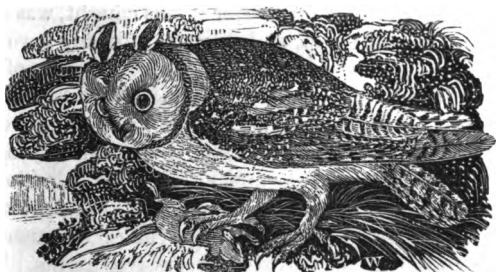
the Toucan gives him such a welcome, that the monkey is glad to run away. So this monstrous bill, according to the wisdom of Providence, when seen peeping out of the nest, makes other animals suppose that a much larger and more powerful bird inhabits the well-guarded mansion.



THE MALABAR HORNBILL.

THIS bird is about two feet six inches long, and in bulk somewhat bigger than a crow. The bill is more than five inches in length, having on its upper part a protuberance rounded at the top, reaching two-thirds of its length, and tending to a sharp edge in front; this extends beyond the eyes, and is in the fore part black. The base and edges of both mandibles, as well as a small portion of the upper part, are also black; the general colour of both these is a dingy yellow. The plumage is in general black, some of the feathers inclining, on their margins, to green; but the lower part of the breast, the belly, and the thighs, and the tip of the wings and tail (except one outer feather in

each of the former, and the two middle feathers in the latter, which are coloured like the rest of the body) are black. The legs are black and very short. In the island of Ceylon these birds are in great request by the inhabitants, who carefully rear them in a domestic state, from their propensity to chase and devour mice and other vermin, of which they clear the houses with as much address as cats.



THE HORNED OWL

Is nearly the largest of all Owls, and has two long horns growing from the top of his head, above his ears, and composed of six feathers, which he can raise or lay down at pleasure. The eyes are large, and encircled with an orange-coloured iris; the ears are large and deep, and the beak black; the breast, belly, and thighs are of a dull yellow, marked with brown streaks; the back, coverts of the wings, and quill feathers are brown and yellow; and the tail is marked with dusky and red bars. He inhabits the north and west of England and Wales. The organ of sight in

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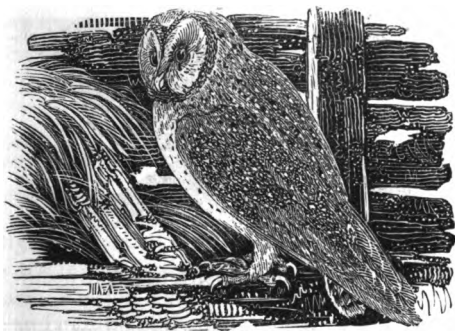
this bird, as well as in all other Owls, is so peculiarly conformed, and so much in its nature resembling that of the feline kind, that this creature can see much better at dusk than by daylight, but in total darkness they do not see well. The Barn Owl sees in a greater degree of darkness than the others; and, on the contrary, the Horned Owl is enabled to pursue his prey by day, but with difficulty.

A pleasing instance of the attachment of these birds to their offspring, is given in the following anecdote: A young Owl, having quitted the nest, was found by some servants. This bird, after it was caught, was shut up in a large hencoop, and the next morning a young partridge was found lying dead before the door of the coop. It was immediately concluded that this provision had been brought thither by the parent birds, which might have been making search in the night-time for their lost young one, and had been led to the place of its confinement by its cry. This proved to have been the case, by the same mark of attention being repeated for fourteen successive nights. The game which the old ones carried to it consisted principally of young partridges. One day a moor fowl was brought, so fresh that it was still warm under the wings. The Owls were watched, but so sharp sighted were they, that they could see when the window was left, and that opportunity was taken to leave fresh food before the coop. In the month of August the parents discontinued this attention; but at that period all birds of prey abandon their offspring to their own exertions. From this instance, some idea may be formed of the great quantity of game that must be destroyed by a pair of Owls, during the time they are employed in rearing their young. The Owl is a solitary bird, and is said to retire into holes in towers and old walls in the winter, and pass that season in sleep.

Gray, in his beautiful "Elegy in a Country Church Yard," expresses himself in the following manner :

Save that from yonder ivy-mantled tower
The moping Owl does to the moon complain
Of such as, wandering near her secret bower,
Molest her ancient solitary reign.

Hark ! how the sacred calm that breathes around
Bids every fierce tumultuous passion cease ;
In still small accents whispering from the ground,
A grateful earnest of eternal peace.



THE WHITE OR SCREECH OWL

Is about the size of a pigeon. His beak, hooked at the end, is more than an inch and a half long. This bird has a circle or wreath of white, soft, and downy feathers, encompassed with yellow ones, beginning from the nostrils on each side, passing round the eye and under the chin, somewhat resembling a hood that women used to wear ; so that the eyes appear to be sunk in the middle of the feathers. The breast, belly, and feathers, of the inside of the wings, are white, and marked with a few dark spots ; the upper parts of the

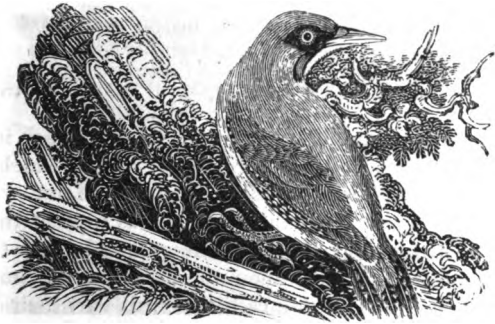
body are of a fine pale yellow colour, variegated with white spots. The legs are covered with a thick down to the feet, but the toes have only thin set hairs around them.

In ancient mythology, this bird was consecrated to Minerva, the goddess of wisdom; in allusion to the lucubrations of wise men, who study in retirement and during the night, in order to improve their knowledge and communicate it to others.



THE GOATSUCKER

Is a bird akin to the swallow; is seldom seen in the day, but flies about in the dusk in quest of insects. It is sometimes called the Churn Owl. His plumage is composed of black, brown, gray, white, and ferruginous colours, beautifully arranged. The tongue is small, and placed low in the mouth; the legs small, also feathered below the knee, and covered with scales. He receives his name from the ancient error of his being supposed to suck the milk, and even the blood, of goats; his large mouth being adapted for such a use. He is said to be a bird of passage, arriving in this island about the latter end of May.



THE COMMON GREEN WOODPECKER, OR POPPINJAY,

RECEIVES his name from the facility with which he pecks the insects from the chinks of trees and holes in the bark. The bill is straight, strong, and angular at the end; and in most of the species is formed like a wedge, for the purpose of piercing the trees. The nostrils are covered with bristles. The tongue is very long, slender, cylindrical, bony, hard, and jagged at the end. The toes are placed two forward and two backward; and the tail consists of ten hard, stiff, and sharp-pointed feathers. They are often seen hanging by their claws, and resting upon their tails against the stem of a tree; and after darting, with strength and noise, their beak against the bark, turn round with great alacrity, which manœuvre has made the country people suppose that they go round to see whether they have not pierced the tree through its body.

The following lines, from Moore's beautiful song,

are faithfully descriptive of the noise the Woodpecker makes in searching for its food.

I knew by the smoke that so gracefully curl'd
Above the green elms that a cottage was near,
And I said, if there's peace to be found in the world,
A heart that was humble might hope for it here.
Every leaf was at rest, and I heard not a sound,
But the Woodpecker tapping the hollow beech tree.

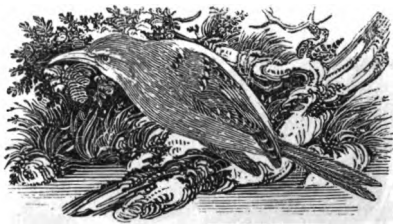
The fact is, that this beating against the bark is for no other purpose than to rouse the insects which the chink contains, and to force them to come out, which they would not do if their enemy was present there; and soon after the Pecker turning round takes them unawares, and feeds upon them: when the insects answer not the delusive call, the birds dart their long tongues into the hole, and bring out, by this means, their reluctant prey. The plumage of this bird is a compound of red and green, two colours, the approximation of which is always productive of harmony in the works of nature. They nestle in the hollow of trees, where the female lays five or six whitish eggs, without making any nest, trusting to the natural heat of her body to hatch them into life.

The Green Woodpecker is seen more frequently on the ground than the other kinds, particularly where there are ant-hills. It inserts its long tongue into the holes through which the ants issue, and draws out these insects in abundance. Sometimes with its feet and bill it makes a breach in the nest, and devours them at its ease, together with their eggs. The young ones climb up and down the trees before they are able to fly; they roost very early, and repose in their holes till day. There are many different kinds of the Woodpecker, five of which are common to this country.



THE NUTHATCH, OR NUTJOBBER,

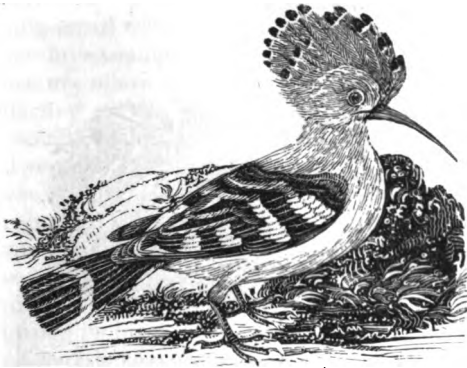
Is less than a chaffinch. The head, neck, and beak are of an ash colour; the sides under the wings red; the throat and breast of a pale yellow; the chin is white, and the feathers under the tail are red, with white tips. He feeds upon nuts, which he hoards in the hollow of a tree: it is pleasing to see this bird fetch a nut out of the hole, place it fast in a chink, and, standing above it with his head downwards, striking it with all his might, break the shell, and catch up the kernel. He feeds also upon flies and other small insects. The hen is so attached to her covey, that, when disturbed from her nest, she flutters about the head of the depredator, and hisses like a snake. These are shy and solitary birds, and, like the woodpecker, they frequent woods, and run up and down the trees with surprising facility. They often move their tail in the manner of the wag-tail. They do not migrate, but during the winter they approach nearer to inhabited places, and are sometimes seen in orchards and gardens. The female lays her eggs in holes of trees, frequently in those which have been deserted by the woodpecker. The young ones are said to afford a very delicate food.



THE CREEPERS

MAKE a family of themselves. They are dispersed through most countries of the globe. They feed chiefly on insects, in search of which they run up and down the stems and branches of trees. The *Wall Creeper*, or *Spider Catcher*, is larger than a house sparrow. He has a long, slender, black bill; the head, neck, and back are of an ash colour; the breast white; the wings a compound of lead colour and red. He is a brisk and cheerful bird, and has a pleasant note. He builds his nest in the holes of trees.

The *Ox-eye Creeper* is not much bigger than a wren. He has a long, slender, sharp bill. The throat, breast, and belly are white; the head, back, and wings of a fox colour; the middle parts of the wings whitish; above the eyes, on each side, is a white spot. It is commonly seen in England, and builds in hollow trees. The smaller the bird, in general, the greater number of eggs the female lays; the number of the Creeper's eggs is sometimes above twenty. It is pleasant to see the Creepers climb up the stem of a tree, with the greatest agility, in search of those small creatures, which, while feeding themselves on smaller ones, become the prey of these little birds. In America the Creeper hatches twice during the summer, and has generally from eighteen to twenty eggs at a time.



THE HOOPOE

Is a small bird, measuring no more than twelve inches from the point of the bill to the end of the tail. The bill is sharp, black, and somewhat bending. The head is adorned with a very beautiful, large, moveable crest, a kind of bright halo, the radiation of which places the head nearly in the centre of a golden circle. This pleasing ornament, which the bird sets up or lets fall at pleasure, is composed of a double row of feathers, reaching from the bill to the nape of the neck, which is of a pale red. The breast is white, with black strokes tending downwards; the wings and back are varied with white and black cross lines. Its food consists chiefly of insects, with the remains of which its nest is sometimes so filled as to become extremely offensive. This beautifully crested bird is not very common in this country. It is a solitary bird, two of them being seldom seen together. In Egypt, where they are very

common, they are often seen in small flocks. The female is said to have two or three broods in the year; she makes no nest, but lays five or six eggs in the hollow of a tree, without any sort of preparation.



THE KINGFISHER

Is the Halcyon of the ancients, and his name recalls to our mind the most lively ideas. It was believed, that, as long as the female sat upon her eggs, the god of storms and tempests refrained from disturbing the calmness of the waves, and *Halcyon days* were for navigators of old times the most secure moment to perform their voyages.

As firm as the rock, and as calm as the flood,
Where the peace-loving Halcyon deposits her brood.

But although this bears analogy to a natural coincidence between the time of brooding assigned to the Kingfishers, and a part of the year when the ocean is less tempestuous, yet Mythology would exercise her fancy, and turn into wonders that which was nothing else than the common course of nature.

This bird is nearly as small as a common sparrow, but the head and beak appear proportionally too big for the body. The bright blue of his back and wings

claims our admiration, as it changes into deep purple or lively green, according to the angles of light under which the bird presents himself to the eye. He is generally seen on the banks of rivers, for the purpose of seizing small fish, on which he subsists, and which he takes in amazing quantities, by balancing himself at a distance above the water for a certain time, and then darting on the fish with unerring aim. It dives perpendicularly into the water, where it continues several seconds, and then brings up the fish, which it carries to land, beats to death, and afterwards swallows. When the bird cannot find a projecting bough, it sits on some stone near the brink, or even on the gravel; but the moment it perceives the fish, it takes a spring upward, of twelve or fifteen feet, and drops from that height upon its prey.

The Kingfisher lays its eggs, to the number of seven or more, in a hole in the bank of the river or stream that it frequents. Dr. Heysham had a female brought alive to him at Carlisle, by a boy, who said he had taken it the preceding night when sitting on its eggs. His information on the subject was, that "having often observed these birds frequent a bank upon the river Peteril, he had watched them carefully, and at last he saw them go into a small hole in the bank. The hole was too narrow to admit his hand; but, as it was made in soft mould, he easily enlarged it. It was upwards of half a yard long: at the end of it the eggs, which were six in number, were placed upon the bare mould, without the smallest appearance of a nest." The eggs were considerably larger than those of the yellow-hammer, and of a transparent white colour. It appears, from a still later account than this, that the direction of the holes is always upward; that they are enlarged at the end, and have there a kind of bedding formed of the bones of small fish, and some other substances, evidently the castings of the parent ani-

mals. This bedding is generally half an inch thick, and mixed with earth. There is reason to believe that both male and female come to this spot for no other purpose than to eject the refuse of their food, for some time before the latter begins to lay : and that they dry it by the heat of their bodies ; as they are frequently known to continue in the hole for hours, long before the period of laying. On this disgorged matter the female deposits and hatches her eggs. When the young ones are nearly full feathered, they are extremely voracious ; and the old birds not supplying them with all the food they can devour, they are continually chirping, and may be discovered by their noise.



THE CUCKOO.

Hail, beauteous stranger of the wood,
Attendant on the spring !
Now heaven repairs thy rural seat,
And woods thy welcome sing.
Soon as the daisy decks the green,
Thy certain voice we hear ;
Hast thou a star to guide thy path,
Or mark the rolling year ?

Delightful visitant! with thee
I hail the time of flowers,
When heaven is fill'd with music sweet,
Of birds among the bowers.

The schoolboy wandering in the wood,
To pull the flowers so gay,
Starts, thy curious voice to hear,
And imitates thy lay.

LOGAN.

THE well known notes of this bird, in spite of their monotony, are heard with pleasure from the grove, in the beginning of spring, as a sure prognostic of fine weather; he is generally first heard about the middle of April, and ceases towards the end of June. His timidity keeps him in the thickets; and few men can boast of having spied him when he was singing. His natural idleness prevents his taking the trouble of making a nest: and Dr. Willoughby and Mr. Ray, two very celebrated ornithologists, assure us, that they have ascertained the fact of the female Cuckoo laying her egg in the nest of some little birds (generally the hedge sparrow), when the mother is absent. The stranger is hatched, and educated as one of the family; and is said to repay his friends with the utmost ingratitude, by killing, or expelling from the nest, the young of the real fabricator of it.

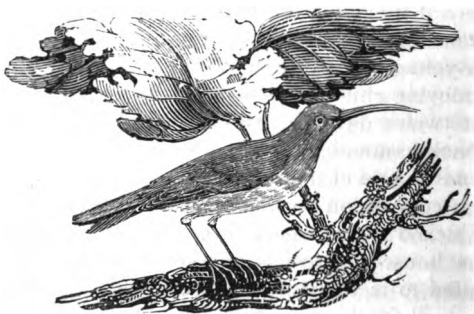
The Cuckoo is somewhat less than the Magpie; his length being about twelve inches from the tip of the bill to the end of the tail. He is remarkable for his round prominent nostrils; the lower part of the body is of a yellowish colour, with black transverse lines on the throat and across the breast; the head and upper part of the body and wings are beautifully marked with black and tawny stripes, and on the top of the head there are a few white spots. The tail is long, and on the exterior part, or edges of the feathers, there are several white marks; the ground colour of the body is a sort of gray. The legs are short, and covered

with feathers ; and the feet composed of four toes, two before and two behind.

We are indebted to the observations of Dr. Jenner for the following account of the habits and economy of this singular bird, in the disposal of its egg. He states that, during the time the hedge-sparrow is laying her eggs, which generally occupies four or five days, the Cuckoo contrives to deposit her egg among the rest, leaving the future care of it entirely to the hedge-sparrow. This intrusion often occasions some disorder ; for the old hedge-sparrow, at intervals, while she is sitting, not only throws out some of her own eggs, but sometimes injures them in such a way that they become addle, so that it frequently happens that not more than two or three of the parent bird's eggs are hatched : but, what is very remarkable, it has never been observed that she has either thrown out or injured the egg of the Cuckoo. When the hedge-sparrow has sat her usual time, and has disengaged the young Cuckoo and some of her own offspring from the shell, her own young ones and any of her eggs that remain unhatched are soon turned out : the young Cuckoo then remains in full possession of the nest, and is the sole object of the future care of the foster parent. The young birds are not previously killed, nor are the eggs demolished ; but they are left to perish together, either entangled in the bush that contains the nest, or lying on the ground beneath it. On the 18th June, 1787, Dr. Jenner examined a nest of a hedge-sparrow, which then contained a Cuckoo's and three hedge-sparrow's eggs. On inspecting it the day following, the bird had hatched ; but the nest then contained only a young Cuckoo and one young hedge-sparrow. The nest was placed so near the extremity of a hedge, that he could distinctly see what was going forward in it ; and, to his great astonishment, he saw the young Cuckoo, though so lately hatched, in the act of turning out the young

hedge-sparrow. The mode of accomplishing this was curious: the little animal, with the assistance of its rump and wings, contrived to get the bird upon its back, and making a lodgment for its burden by elevating its elbows, climbed backward with it up the side of the nest, till it reached the top; where, resting for a moment, it threw off its load with a jerk, and quite disengaged it from the nest. After remaining a short time in this situation, and feeling about with the extremities of its wings, as if to be convinced that the business was properly executed, it dropped into the nest again. Dr. Jenner made several experiments in different nests, by repeatedly putting in an egg to the young Cuckoo; which he always found to be disposed of in the same manner. It is very remarkable, that nature seems to have provided for the singular disposition of the Cuckoo, in its formation at this period; for, different from other newly hatched birds, its back, from the scapulæ downward, is very broad, with a considerable depression in the middle, which seems intended for the express purpose of giving a more secure lodgment to the egg of the hedge-sparrow or its young one, while the young Cuckoo is employed in removing either of them from the nest. When it is about twelve days old, this cavity is quite filled up, the back assumes the shape of that of nestling birds in general, and at that time the disposition of turning out its companion entirely ceases. The smallness of the Cuckoo's egg, which in general is less than that of the house-sparrow, is another circumstance to be attended to in this surprising transaction, and seems to account for the parent Cuckoo's depositing it in the nests of such small birds only as these. If she were to do this in the nest of a bird that produced a larger egg, and consequently a larger nestling, the design would probably be frustrated; the young Cuckoo would be unequal to the task of becoming sole possessor of the nest, and might fall a sacrifice to the

superior strength of its partners. Dr. Jenner observes, that the eggs of two Cuckoos are sometimes deposited in the same nest : but he gives the following instance, which fell under his observation. Two Cuckoos and a hedge-sparrow were hatched in the same nest ; one hedge-sparrow's egg remained unhatched. In a few hours, a contest began between the Cuckoos for possession of the nest ; and this continued undetermined till the afternoon of the following day, when one of them, which was somewhat superior in size, turned out the other, together with the young hedge-sparrow and the unhatched egg. The contest, he adds, was very remarkable : the combatants alternately appeared to have the advantage, as each carried the other several times nearly to the top of the nest, and again sank down oppressed by the weight of its burden ; till at length, after various efforts, the strongest of the two prevailed, and was afterwards brought up by the hedge-sparrow.



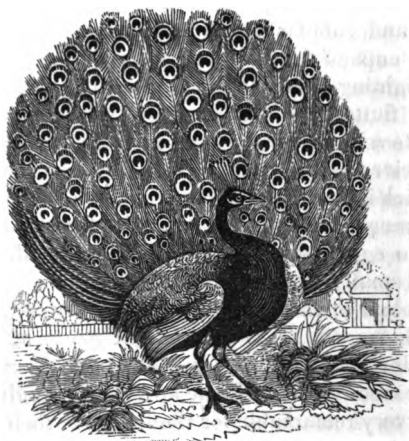
THE HUMMING-BIRD

Is the least of all the feathered tribe, and a native of America, where they are as common as butterflies are here. The sizes vary with the different species : the largest is about as big as our smallest wren, and the

smallest the size of our common humblebee. They feed upon the nectar, which they extract with their slender and tubular beaks and threadlike tongues, from the cups of the flowers: always on the wing, and never alighting to take their food: in this situation the constant fluttering of their wings, which move with incredible velocity, produces a humming noise, whence they receive their denomination. They suspend their nest, which is not bigger than a walnut, to the branches of the orange or lemon tree, and the female deposits there two eggs only, very white, dashed with brown spots, as small as a common pea.

The colour of this small favourite of nature is most beautiful, resembling, by its bright azure and deep green colour, mixed with a golden gloss, the richness of the peacock's neck. Some species of this dwarfish bird are very remarkable for the length of their forked tails. It is natural to suppose, that, feeding upon the ambrosia which they find in the scented bosom of the flowers, they cannot subsist in countries where the severity of the winter season destroys this pride of our gardens, and must therefore be confined to those tropical regions, where ever blooming flowers present them with a never failing stream of nectar.

"My friend Captain Davis informs me," says Dr. Latham, in his *Synopsis of Birds*, "that he kept these birds alive for four months by the following method:—He made an exact representation of some of the tubular flowers, with paper fastened round a tobacco-pipe, and painted them of a proper colour; these were placed in the order of nature, in the cage in which the little creatures were confined: the bottoms of the tubes were filled with a mixture of brown sugar and water, as often as emptied; and he had the pleasure of seeing them perform every action; for they soon grew familiar, and though close under the eye, took their nourishment in the same manner as when ranging at large in the open air."



THE PEACOCK.

ASTONISHED at the unparalleled beauty of this bird, the ancients could not help indulging their lively and creative fancy, in accounting for the magnificence of his plumage. They made him the favourite of imperial Juno, sister and wife to Jupiter; and not less than the hundred eyes of Argus were pulled out to ornament his tail; indeed, there is scarcely any thing in nature that can vie with the transcendent lustre of the Peacock's feathers. The changing glory of his neck eclipses the deep azure of ultramarine; and at the least evolution, it assumes the green tint of the emerald, and the purple hue of the amethyst. His head, which is small and finely shaped, has several curious stripes of white and black round the eyes, and is surmounted by an elegant plume, or tuft of feathers, each of which is composed of a slender stem and a small flower at the top. Displayed with conscious pride, for the purpose of expressing his love to his female,

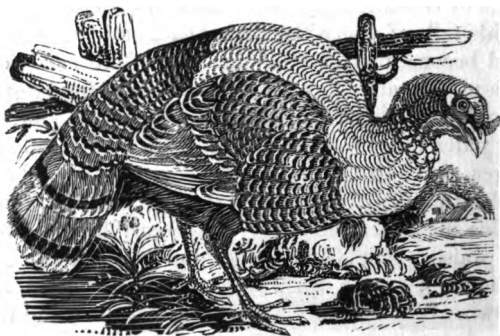
and exposed under a variety of angles to the reflections of versatile light, the broad and variegated discus of his tail, of which the neck, head, and breast of the bird become the centre, claims our well merited admiration. By an extraordinary mixture of the brightest colours, it displays at once the richness of gold, and the paler tints of silver, fringed with bronze-coloured edges, and surrounding eye-like spots of dark brown and sapphire; it is supposed that this bird is conscious of his incomparable beauty, and sensible to the voice of praise. The female does not share these great honours with the cock, and is generally of a light brown. She lays only a few eggs at a time, and these at a distance of usually three or four days from each other; they are white and spotted, like the eggs of the turkey. She sits from twenty-seven to thirty days.

The loud screamings of the Peacock are worse than the harsh croakings of the raven, and a sure prognostic of bad weather; and his feet, more clumsy than those of the turkey, make a sad contrast with the elegance of the rest.

Though richest hues the Peacock's plumes adorn,
Yet horror screams from his discordant throat.

The spreading of the tail, the swelling of the throat, neck, and breast, and the puffing noise, which they emit at certain times, are proofs that the turkey and the Peacock stand nearly allied in the family chain of animated beings.

The flesh of the Peacock was anciently a princely dish; and the whole bird used to be served on the table, with the feathers of the neck and tail preserved; but few people could now relish such food, as it is much coarser than the flesh of the turkey. The Italians have given this laconic description of the Peacock: "He has the plumage of an angel, the voice of a devil, and the stomach of a thief."



THE TURKEY

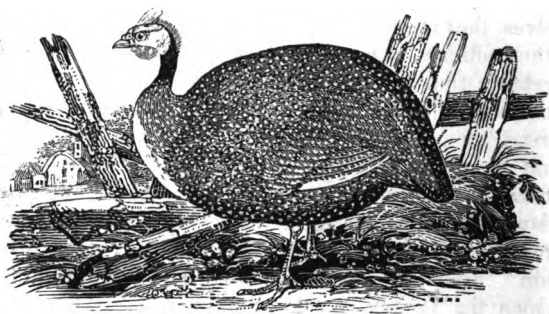
WAS originally an inhabitant of America, whence he was brought to Europe by some jesuit missionaries, which accounts for his being called a jesuit in some parts of the continent. Except the tuft on the head, which he does not share with the Peacock, and his plumage, which is very different from that of the latter, in many particulars he is very like him. The general colour is brown and black; and they have about the head, especially the cock, naked and tuberos lumps of flesh of a bright red colour. A long fleshy appendage depends from the base of the upper mandible, and seems to be lengthened and shortened at pleasure. The hen lays from fifteen to twenty eggs, which are whitish and freckled. The chickens are very tender, and require great care and attentive nursing, before they are able to seek their food. In the county of Norfolk the breeding of Turkeys, which is there a considerable branch of commerce, is brought to such a perfection, that they are the largest in this island, weighing upwards of twenty pounds each; and in the East Indies they generally weigh upward of fifty.

They appear to have a natural antipathy to every thing of a red colour.

Though extremely prone to quarrel among themselves, they are, in general, weak and cowardly against other animals, and are seen to fly from almost every creature that will venture to oppose them. On the contrary, they pursue every thing that appears to dread them, particularly small dogs and children; and after having made these objects of their aversion scamper, they evince their pride and satisfaction by displaying their plumage, strutting among their female train, and uttering their peculiar note of self-approbation. Some instances, however, have occurred, in which the Turkey-cock has exhibited a considerable share of courage and prowess; as will appear from the following anecdote:—A gentleman of New York received from a distant part a Turkey-cock and hen, and with them a pair of bantams; which were put all together into the yard with his other poultry. Sometime afterward, as he was feeding them from the barn door, a large hawk suddenly turned the corner of the barn, and made a pounce at the bantam hen: she immediately gave the alarm, by a noise which is natural to her on such occasions; when the Turkey-cock, who was at the distance of about two yards, and without doubt understood the hawk's intention, flew at the tyrant with such violence, and gave him so severe a stroke with his spurs, as to knock him from the hen to a considerable distance; by which means the bantam was rescued from destruction.

The wild Turkey-cock is, in the American forests, an object of considerable interest. It perches on the tops of the cypress and magnolia.

On the top
Of yon magnolia, the loud Turkey's voice
Is heralding the dawn; from tree to tree
Extends the wakening watch note far and wide,
Till the whole woodlands echo with the cry.



THE PINTADO.

THIS bird, which is called also the *Guinea Hen*, or *Pearled Hen*, was originally brought from Africa, where the breed is common, and seems to have been well known to the Romans, who used to esteem the flesh of this fowl as a delicacy, and to admit it at their banquets. She went then by the name of Numidian Hen, or *Meleagris*, a compound Greek word, which implies somewhat of the principal characteristics of the bird, namely, stolidity and rusticity. In fact, although they are now domesticated with us, they retain yet a great deal of their original freedom, and have a stupid look. Their noise is very disagreeable; it is a creaking note, which, incessantly repeated, grates upon the ear, and becomes very teasing and unpleasant. They belong to the class of birds called *pulveratores*; as they scrape the ground and roll themselves in the dust like common hens, in order to get rid of small insects which lodge in their feathers.

The Pintado is somewhat larger than the common hen; her head is bare of feathers, and covered with a

naked skin of a bluish colour; on the top is a callous protuberance of a conical form. At the base of the bill on each side hangs a loose wattle, red in the female and bluish in the male. The general colour of the plumage is a dark bluish gray, sprinkled with round white spots of different sizes, resembling pearls, from which circumstance the epithet of *pearled* has been applied to this bird; who, at first sight, appears as if he had been pelted by a strong shower of hail. These spots, which we find of a larger dimension upon some of the feathers of the pheasant, and bigger still on the tail of the peacock, are convincing proofs of a near relationship between these fowls.

If trained when young, these birds may soon be rendered tame. M. Bruë informs us, that when he was on the coast of Senegal, he received, as a present from an African princess, two Guinea fowls. Both these birds were so familiar that they would approach the table and eat out of his plate; and, when they had liberty to fly about upon the beach, they always returned to the ship, when the dinner or supper bell rang.

In a wild state, it is asserted that the Pintado associates in numerous flocks. Dampier speaks of having seen betwixt two and three hundred of them together, in the Cape de Verd Islands. They were originally introduced into our country from the coast of Africa, somewhat earlier than the year 1260.

This bird has, of late years, considerably increased in this country, and is often seen hanging at the poultry shops and in the markets; the great abundance of them has considerably reduced their value, and they sell now, proportionally, like other fowls. The eggs are smaller than those of the common hen, and rounder, of a speckled reddish-brown colour. They are reckoned a very delicate food.



THE COMMON COCK.

While the Cock, with lively din,
Scatters the rear of darkness thin;
And to the stack, or the barn door,
Stoutly struts, his dames before.

MILTON.

THIS bird is so well known, that it would be lost labour to say much of him. His plumage is various and beautiful, his courage very great and proverbial, his sobriety astonishing, and his inward knowledge of the station which the sun holds in the firmament has baffled the most obstinate researches of naturalists. When of a good breed, and well taught to fight, he will rather die than yield to his adversary. The hen lays a great number of eggs, and at certain times feels an irresistible propensity to sit upon them. When in the secluded state of incubation, she eats very little; and yet is so courageous and strong, that she will rise and fight men or animals, that dare to approach her nest. It is impossible to conceive how, with so scanty a sustenance as she takes, she can, for twenty-one days, emit constantly from her body, so much heat as would raise Fahrenheit's thermometer to ninety-six

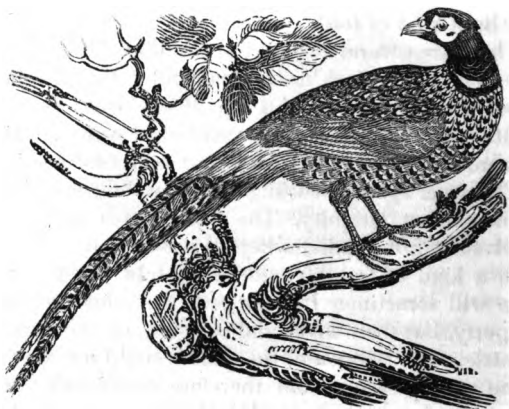
degrees. The flesh of this bird is delicate and wholesome, and given to convalescent people as a nourishing and light kind of food.

There are several varieties or families of this fowl. The *Hamburgh Cock* has a beautiful tuft of feathers about his ears, and on the top of his head; and the *Bantam* has his legs and toes entirely covered, which is more an impediment than an ornament to the bird.

The cruel sport of cockfighting may be traced back to the earliest antiquity. The Athenians seem to have received it from India, where it is even now followed with a kind of frenzy; and we are told that the Chinese will sometimes risk not only the whole of their property, but their wives and children, on the issue of a battle. The religion of the Greeks could not see that game with pleasure, and therefore cockfighting was allowed only once a year; but the Romans, who had given to the bird the name of their earliest enemies, the Gauls, adopted the practice with rapture, and introduced it into this island. Henry VIII. delighted in this sport; and caused a commodious house to be built for the purpose, which, although it is now applied to a very different use, still retains the name of the cockpit. The part of our ships so called, seems also to indicate that at other times the diversion of cockfighting was permitted, in order to beguile the tedious hours of a long voyage. It is a great pity, that a custom, which originated in barbarous times, should still continue to the disgrace of a philosophic and enlightened age.—The Cock has been a subject of considerable interest with the poets; and, in consequence, he has been very commonly called by them “Chanticleer.”

Within this homestead lived, without a peer
For crowing loud, the noble Chanticleer. DRYDEN.

The feather'd songster, Chanticleer,
Had wound his bugle horn,
And told the early villager
The coming of the morn. CHATTERTON.



THE PHEASANT.

THE name of this bird implies that he was originally a native of the banks of the river Phasis in Armenia; how and when he emigrated, and began to haunt our groves, is unknown. He is of the size of the common cock; the bill is of a pale horn colour; the nostrils arched, under an arched covering; the eyes are yellow, and are surrounded by a naked warty skin, of a beautiful scarlet, finely spotted with black; immediately under each eye there is a small patch of short feathers, of a dark glossy purple; the upper parts of the head and neck are of a deep purple, varying to glossy green and blue; the lower parts of the neck and breast are of a reddish chesnut, with black indented edges; the sides and lower part of the breast are of the same colour, with pretty large tips of black to each feather, which, in different lights, vary to glossy purple; indeed, the whole colour of this half domesticated fowl is very beautiful, uniting the brightness of deep yellow gold to the finest tints of ruby and turquoise, with

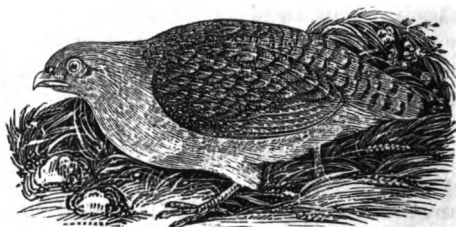
reflections of green ; the whole being set off by several spots of shining black ; but, as in every other kind of well painted birds, nature has, for some wise purposes yet unknown to us, denied the female that admirable beauty of plumage. The Pheasant lives in the woods, which he leaves at dusk to perambulate corn fields and other sequestered places, where he feeds, with his females, upon acorns, berries, grain, and seeds of plants, but chiefly on ants' eggs, of which he is particularly fond. His flesh is justly accounted better meat than any of the domestic or wild fowls, as it unites the delicacy of the common chicken to a peculiar taste of its own. The female lays eighteen or twenty eggs once a year, in the wild state ; but it is in vain that we have attempted to domesticate this bird entirely, as she never will remain patiently confined ; and, if she ever breeds in confinement, she is very careless of her brood.

There are great varieties of Pheasants, of extraordinary beauty and brilliancy of colours ; many of these, brought from the rich provinces of China, are kept in aviaries in this kingdom : the common Pheasant is likewise a native of the East, and is the only one of its kind that has multiplied in our island ; but of late years they have become so numerous in our preserves, that, at feeding time in the morning, they may be seen in the neighbouring fields in large numbers, running about almost as tame as chickens.

This beautiful bird is elegantly described in the following passage :—

See ! from the brake the whirring Pheasant springs,
And mounts exulting on triumphant wings ;
Short is his joy ; he feels the fiery wound,
Flutters in blood, and panting beats the ground ;
Ah ! what avails his glossy, varying dyes,
His purple crest, his scarlet-circled eyes,
The vivid green his shining plumes unfold,
His painted wings, and breast that flames with gold !

POPE'S WINDSOR FOREST.



THE PARTRIDGE

Is in weight about fourteen ounces. The shape of this bird is peculiar to himself and the quail, both having a very short tail; his plumage, although it cannot boast of gaudiness, is very pleasing to the eye, being altogether a mixture of brown and fawn colour, interspersed with gray and ash colour tints. The head is small and pretty; the beak strong, but short, and resembling that of all other granivorous birds. The female lays fifteen or eighteen eggs, and leads her brood in the corn fields with the utmost care. The affection of Partridges for their offspring is peculiarly interesting. Both the parents lead them out to feed; they point out to them the proper places for their food, and assist them in finding it by scratching the ground with their feet. They frequently sit close together, covering the young ones with their wings; and from this protection they are not easily roused. If, however, they are disturbed, most people acquainted with rural affairs know the confusion that ensues. The male gives the first signal of alarm, by a peculiar cry of distress; throwing himself at the same moment more immediately into the way of danger, in order to

mislead the enemy. He flutters along the ground, hanging his wings, and exhibiting every symptom of debility. By this stratagem he seldom fails of so far attracting the attention of the intruder as to allow the female to conduct the helpless unfledged brood into some place of security. Their nest is usually on the ground; but, on the farm of Lion Hall, in Essex, belonging to Colonel Hawker, a Partridge, in the year 1788, formed her nest, and hatched sixteen eggs, on the top of a pollard oak tree! What renders this circumstance the more remarkable is, that the tree had, fastened to it, the bars of a stile, where there was a footpath; and the passengers, in going over, discovered and disturbed her before she sat close. When the brood was hatched, the birds scrambled down the short and rough boughs, which grew out all around the trunk of the tree, and reached the ground in safety. It has long been a received opinion among sportsmen, as well as among naturalists, that the female Partridge has none of the bay feathers of the breast like the male. This, however, on dissection, has proved to be a mistake; for, Mr. Montagu happening to kill nine birds in one day, with very little variation as to the bay mark on the breast, he was led to open them all, and discovered that five of them were females. On carefully examining the plumage, he found that the males could only be known by the superior brightness of colour about the head; which alone, after the first or second year, seems to be the true mark of distinction. They fly in coveys till about the third week in February, when they separate and pair; but if the weather be very severe, it is not unusual to see them collect together again into coveys. Partridges have ever held a distinguished place at the tables of the luxurious; we have an old distich:—

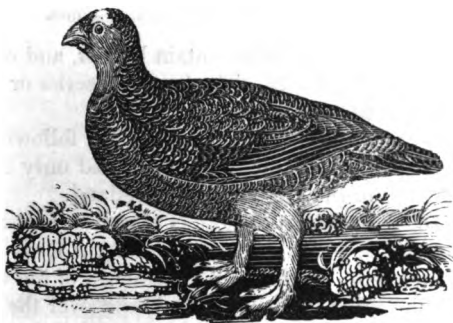
If the Partridge had the woodcock's thigh,
'Twould be the best bird that e'er did fly.



THE QUAIL

Is a small bird, being in length no more than seven inches. The colour of the breast and belly is of a dirty pale yellow, the throat has a little mixture of red ; the head is black, and the body and wings have black stripes upon an hazel-coloured ground. Their habits and manner of living resemble those of the partridge, and they are either caught in nets by decoy birds, or shot by the help of the setting dog, their call being easily imitated by tapping two pieces of copper one against another. The flesh of the Quail is very luscious, and next in taste to that of the partridge. Quails are birds of passage, the only peculiarity in which they differ from all other of the poultry kind ; and such prodigious numbers have sometimes appeared on the western coast of the kingdom of Naples, that one hundred thousand have been caught in one day, within the space of three or four miles. In some parts of the south of Russia they abound so greatly, that at the time of their migration they are caught by thousands, and sent in casks to Moscow and St. Petersburg. The female lays seldom more than six or seven eggs.

The ancient Athenians kept this bird merely for the sport of fighting with each other, as game cocks do, and never eat the flesh ; it was that wild fowl which God thought proper to send to the chosen people, as a sustenance in the desert.



THE RED GROUSE

Is called by some ornithologists the *Moor-Cock*, *Gor-Cock*, and *Red Game*. The beak is black and short; over the eyes there is a bare skin of a bright red. The general colour of the plumage is red and black, variegated and intermixed with each other, except the wings, which are brownish, spotted with red, and the tail, which is black; the legs are covered with long thick feathers down to the very toes. This bird is common in the north of England, Scotland, and in Wales; and not only affords great diversion to the noblemen and gentlemen of those countries who are fond of shooting, but also repays them well for their trouble, as the flesh of this wild fowl is very delicate, and holds on our table the first place with the partridge and the pheasant.

In winter they are usually found in flocks of sometimes fifty to one hundred in number, which are termed by sportsmen *packs*, and become remarkably shy and wild, seldom allowing the shooter to approach them within one hundred yards. They keep near the summits of the heathy hills, and seldom descend to the lower grounds.

High on exulting wing the Heath-Cock rose,
And blew his shrill blast o'er perennial snows.

Here they feed on the mountain berries, and on the tender tops of the heath. The hen lays seven or eight eggs of a reddish black colour.

Besides the Red Grouse, there are the following of the same species, but they are now found only in the wildest parts of the Highlands of Scotland.

The *Black Grouse* in weight is about four pounds; but the female, which is usually called the Gray Hen, is not often more than two. The plumage of the whole body of the male is black, and glossed over the neck and rump with shining blue; the coverts of the wings are of a dusky brown, with the quill feathers black and white. The tail is much forked. These birds never pair; but in the spring the males assemble at their accustomed haunts on the tops of heathy mountains, where they crow and clap their wings. The females, at this signal, resort to them. The males are very quarrelsome, and fight together like game cocks. On these occasions they are so inattentive to their own safety, that two or three have sometimes been killed at one shot; and instances have occurred of their having been knocked down with a stick.

The *Ptarmigan*, or *White Grouse*, is somewhat larger than a pigeon; its bill is black, and its plumage in summer is of a pale brown colour, elegantly mottled with small bars and dusky spots. The head and neck are marked with broad bars of black, rust colour, and white; the wings and belly are white. The White Grouse is fond of lofty situations, where it braves the severest cold. It is found in most of the northern parts of Europe, even as far as Greenland. In this country it is only to be met with on the summits of some of our highest hills, chiefly in the Highlands of Scotland, in the Hebrides and Orkneys; and sometimes, but rarely, in the lofty hills of Cumberland and Wales.



THE OSTRICH

Is bred in Africa, Asia, and America. It is the tallest of all birds; when he holds up his head he can reach eleven feet in height. The head is very small in comparison with the body, being hardly bigger than one of his toes; it is covered, as well as the neck, with a certain down, or thin set hairs, instead of feathers. The sides and thighs are entirely bare, and flesh-coloured. The lower part of the neck, where the feathers begin, is white. The wings are short, and of no use for flying, but help the bird in his skipping along the plain. The feathers of the back, in the cock,

are coal black; in the hen only dusky, and so soft that they resemble a kind of wool. The tail is thick, bushy, and round; in the cock whitish, in the hen dusky with white tops. These are the feathers so generally in requisition, to decorate the hats of our ladies, and the helmets of warriors.

The Ostrich swallows any thing that presents itself to him, leather, glass, iron, bread, hair, &c.; and what the power of digestion in the stomach is unable to macerate, is voided entire by the common way.

O'er the wild waste the stupid Ostrich strays,
In devious search to pick her scanty meal,
Whose fierce digestion gnaws the temper'd steel.

They are polygamous birds; one male being generally seen with two or three, and sometimes with five, females. It has been commonly believed that the female Ostrich, after depositing her eggs in the sand, trusts them to be hatched by the heat of the climate, and leaves the young ones to provide for themselves. Even the author of the book of Job alludes to this popular notion respecting the Ostrich, "which leaveth her eggs in the earth, and warmeth them in the dust; and forgetteth that the foot may crush them, or that the wild beast may break them. She is hardened against her young ones, as though they were not hers. Her labour is in vain; without fear, because God hath deprived her of wisdom; neither has he imparted to her understanding. What time she lifteth up her head on high, she scorneth the horse and his rider." Recent travellers have however assured us, that no bird has a stronger affection for her offspring than this, and that none watches her eggs with greater assiduity. The eggs are as large as a young child's head, with a hard stony shell: between sixty and seventy have sometimes been found in one nest. The time of

incubation is six weeks. Near the nest are always placed a certain number of eggs, which the birds do not sit upon, but which are designed for the first nourishment of the future young. That Ostriches have great affection for their offspring, may be inferred from the assertion of Professor Thunberg, that he once rode past the place where a hen Ostrich was sitting in her nest; when the bird sprang up and pursued him, evidently with a view to prevent his noticing her eggs or young. Every time he turned his horse towards her, she retreated ten or twelve paces; but as soon as he rode on again, she pursued him, till he had got to a considerable distance from the place where he had started her.

Some persons breed Ostriches in flocks; for they may be tamed with very little trouble; and in their domestic state, few animals may be rendered more useful. When Mr. Adamson was at Podar, a French factory on the southern banks of the river Niger, two young but full-grown Ostriches, belonging to the factory, afforded him a very amusing sight. They were so tame, that two little blacks mounted both together on the back of the largest. No sooner did he feel their weight, than he began to run as fast as possible, and carried them several times round the village; and it was impossible to stop him otherwise than by obstructing the passage. This sight pleased Mr. Adamson so much, that he wished it to be repeated; and, to try their strength, he directed a full grown negro to mount the smaller, and two others the larger of the birds. This burden did not seem at all disproportioned to their strength. At first they went at a tolerably sharp trot; but when they became heated a little, they expanded their wings, as though to catch the wind, and moved with such fleetness that they scarcely seemed to touch the ground.



THE CASSOWARY

Is next in size to the ostrich, but of a different nature. His wings are hardly perceptible, being very short, and entirely concealed under the plumage. The general tint of his feathers is brown, with some spots of vermilion red; his head is small and depressed, with a horny crown; the head and neck are deprived of feathers, and only set with a kind of hairy down. From the bill to the claws the body measures about five feet and a half; about the neck are two protuberances of a bluish colour, and in shape like the wattles of a cock. Unlike other birds, the feathers of the wings, and other parts of the body, are entirely the same; so that at a distance he looks rather as if he were entirely covered with hairs like a bear, than with plumage like a bird. The Cassowary eats indiscriminately whatever comes in his way, and does not seem to have any sort of predilection in the choice of his food. He is a native of the southern parts of India; the eggs

of the female are nearly fifteen inches in circumference, of a grayish ash colour, marked with green. It has been said of the Cassowary, that he has the head of a warrior, the eye of a lion, the armament of a porcupine, and the swiftness of a courser.

A Cassowary, now kept in the menagerie of the museum at Paris, devours every day betwixt three and four pounds weight of bread, six or seven apples, and a bunch of carrots. In summer it drinks about four pints of water in the day; and in winter somewhat more. It swallows all its food without bruising it. This bird is sometimes ill tempered and mischievous; is much irritated when any person approaches it of a dirty or ragged appearance, or dressed in red clothes; and frequently attempts to strike at them by kicking forward with its feet. It has been known to leap out of its enclosure, and to tear the legs of a man with its claws.

The Cassowary is a very vigorous and powerful bird; its beak being, in proportion, much stronger than that of the ostrich, it has the means of defending itself with great advantage, and of easily pulling down and breaking in pieces almost any hard substance. It strikes in a very dangerous manner with its feet, either behind or before, not unlike the kicking of a horse, at any object which offends it.

The *Emeu* has been supposed by some to be a different bird, and has been confounded with the Cassowary of South America; but it is only the Indian name of the species above described; which probably, being commonly used by the Portuguese in India, was carried by them to the new continent.

A still larger species of Cassowary, inferior however in size to the ostrich, has been found in New Holland; and it has been considered as belonging to the same genus: but the ostrich has only two toes on each foot, while all the Cassowaries have three.



THE RING-DOVE, OR CUSHAT,

Is the largest Pigeon found in our island, and may at once be distinguished from all others by its size; its weight is about twenty ounces; its length eighteen inches, and its breadth about thirty. It is usually known as the Wood Pigeon. This bird is of a pale chocolate or cream colour, with a black ringlet, with white edges, round the neck; the breed is common in England. Its habits are like those of other birds of the tribe; but it is so strongly attached to its native freedom, that all attempts to domesticate it, with a few rare exceptions, have hitherto proved ineffectual.

These birds build their nest chiefly on the pine, with dried sticks, thrown rudely together; and the eggs, which may frequently be seen through the bottom of the nest, are larger than those of the domestic Pigeon. Attempts have been made to domesticate them by hatching their eggs under the common Pigeon, but as soon as they were able to fly, they always escaped to their proper haunts.

Mr. Montagu bred up a curious assemblage of birds, which lived together in perfect amity : it consisted of a common pigeon, a Ring-dove, a white owl, and a sparrow-hawk ; and the Ring-dove was master of the whole.



THE STOCKDOVE, OR WILD PIGEON,

APPEARS to have been the origin of all the tribes of the Pigeon kind. They generally build their nests either in holes of rocks, or in excavated trees, and are, when taken young, easily brought to a domesticated state. They have been known to breed eight or nine times in the year, and though only two eggs are laid at a time, their increase is so rapid and prodigious, that, at the expiration of four years, the produce and descendants of a single pair may amount to the immense number of nearly fifteen thousand.

They preserve their original colour through several generations, and become by degrees more diversified in their plumage ; a circumstance which is remarkable

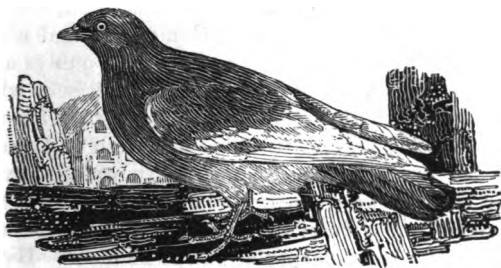
in all quadrupeds or birds, who, from the free but wild state of nature, are brought to the easier mode of domestic life. The colour of the Stockdove is generally of a deep slate or lead tint, with rings of black about the feathers. Multitudes of Wild Pigeons visit this country in the winter, from their more northerly summer retreats. They appear about November, and again retire (except a few that breed with us) in the spring. While the beech woods were suffered to cover large tracts of ground, these birds used to haunt them in myriads, frequently extending above a mile in length, as they went out in a morning to feed. They are, however, still found in considerable quantity in many parts of our island; forming their nests in holes of rocks and old towers, and in the hollows of trees; but never, like the ring-dove, on boughs. Their murmuring strains, or cooings, in the morning and at dusk, are highly pleasing, and throw an agreeable melancholy on the solitude of the grove. The Poet of the Seasons expresses this in the following lines, with a beautiful instance of imitative harmony. After describing the full band of the woodland choristers with elegance and truth, he concludes,

—————the Stockdove breathes
A melancholy murmur through the whole.

SPRING.

Wordsworth also gives a pleasing description of the mournful cooing of these birds:

I heard a Stockdove sing or say
His homely tale this very day;
His voice was buried among trees,
Yet to be come at by the breeze;
He did not cease; but cooed, and cooed;
And somewhat pensively he wooed;
He sang of love with quiet blending,
Slow to begin, and never ending;
Of serious faith and inward glee,
That was the song,—the song for me.



THE TAME PIGEON

Is well known as to his shape, but the colour varies so much, that it eludes the rules of classification. They prefer a gregarious life, and abide often to the number of five or six thousand in a tower purposely built for them in the neighbourhood of the farm yard, with proper holes to nestle in. The female Pigeon, through the whole species, lays two eggs at a time, which bring generally a male and a female. It is pleasing to see how eager the male is to sit upon the eggs, in order that his mate may rest and feed herself. Faithfulness and harmony are invariable inmates of their nests; most happy would they be had they no others, but they are often infested by insects, always ready to vex and torment the young ones.

There are upwards of twenty varieties of the domestic Pigeon, and of these the carriers are the most celebrated. They obtain their name from being sometimes employed to convey letters or small packets from one place to another. The rapidity of their flight is very wonderful. Leithgow assures us that one of them will carry a letter from Babylon to Aleppo (which, to a

K

man, is usually thirty days' journey) in forty-eight hours. To measure their speed with some degree of exactness, a gentleman some years ago, on a trifling wager, sent a carrier Pigeon from London, by the coach, to a friend at Bury St. Edmond's; and along with it a note, desiring that the Pigeon, two days after its arrival there, might be thrown up precisely when the town clock struck nine in the morning. This was accordingly done, and the Pigeon arrived in London at half-past eleven o'clock of the same morning, having flown seventy-two miles in two hours and a half. From the instant of its liberation, its flight is directed through the clouds, at an amazing height, to its home. By an instinct altogether inconceivable, it darts onward, in a straight line, to the very spot whence it was taken; but how it can direct its flight so exactly will probably ever remain unknown to us.

The Carrier Pigeon is easily distinguished from the other varieties, by a broad circle of naked white skin round the eyes, and by its dark blue or blackish colour.

Led by what chart, transports the timid Dove
The wreaths of conquest, or the vows of love?
Say, through the clouds, what compass points her flight?
Monarchs have gazed, and nations bless'd the sight.
Pile rocks on rocks, bid woods and mountains rise,
Eclipse her native shades, her native skies;—
'Tis vain! through ether's pathless wilds she goes,
And lights at last where all her cares repose.
Sweet bird, thy truth shall Harlem's walls attest,
And unborn ages consecrate thy nest.

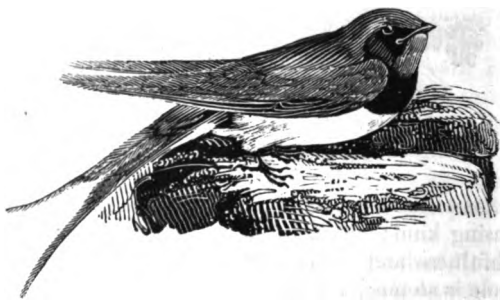
ROGERS.



THE TURTLEDOVE

BRINGS to the heart and mind recollections of the most pleasing kind ; the name is nearly synonymous with faithfulness and unvariable affection. The male or female is so much attached to the respective mate, that it is said, perhaps with more emphasis than truth, that if one die the other will never survive ; however, the author of these observations was an eye-witness, that a female Turtle dove, having been unfortunately killed by a spaniel in the absence of the male, the disconsolate survivor, after having searched in vain all places where he might find his mate, came and mournfully perched upon the wonted trough, waiting patiently for her to repair thither in order to get food ; but after two days of unavailing expectation, he, by spontaneous abstinence, pined and died on the place. These examples are not common ; and we believe, that, when not domesticated, the appearance of another female, in the time of coupling, sets at defiance all natural propensity to constancy, and puts an end to the much famed widowhood. The general colour of this bird is a bluish gray ; the breast and neck of a kind of whitish purple, with a ringlet of beautiful white feathers with black

edges about the sides of the neck. Nothing can express the sensation which is excited in a feeling mind, when the tender and sweetly plaintive notes of the Turtle-dove breathe from the grove on a beautiful spring evening; it is the very harmony of the heart.



THE SWALLOW.

SWALLOWS are easily distinguished from all other birds, not only by their general structure, but by their twittering voice, and their manner of life. They fly with great rapidity, seldom walk, and perform all their functions either on the wing or sitting.

It has long been a problem, whether these birds emigrate from country to country, or remain the whole winter where they have abided during the summer season, and then hide themselves in caves, banks of rivers, holes of trees, clefts of rocks, to pass the cold months in torpid insensibility. Of the possibility of emigrating there is no doubt, as this bird can remain so long on the wing; on the other hand, of their having been found clustered together, under the shelving banks of rivers and ponds, many instances have

been asserted to prove that they do not migrate; and thus the lover and observer of nature is left in doubt. The probability is that the major part emigrate; and we have proofs that many do, from mariners observing them on their passage. White, and some other naturalists, believe that the early hatched birds leave the country in autumn, and the late broods, not being sufficiently strong on the wing for the passage, remain behind in a dormant state.

There are several species of the Swallow: the general characters, a small beak, but large wide mouth, for the purpose of swallowing flying insects, their natural food; and long forked tail and extensive wings, to enable them to pursue their prey, belong to all of them. The common house Swallow builds under the eaves of houses, or in chimneys, near their top: the martin also builds under eaves, and very commonly against the upper corner or side of our very windows, and seems not afraid at the sight of man, yet it cannot be tamed, or even kept in a cage. The nature of their nest is worthy our serious observation; how the mud is extracted from the sea-shores, rivers, or other watery places; how masoned and formed into a solid building, strong enough to support a whole family, and to face the "pelting storm," are wonders which ought to raise our mind to Him who bestowed that instinct upon them.

It is related that a pair of Swallows built their nest for two successive years on the handle of a pair of garden shears, that were stuck up against the boards in an outhouse; and, therefore, must have had their nest spoiled whenever the implement was wanted. And what is still more strange, a bird of the same species built its nest on the wings and body of an owl that happened to hang dead and dry from the rafter of a barn, and so loose as to be moved by every gust of wind. This owl, with the nest on its wings, and with

eggs in the nest, was taken as a curiosity to the museum of Sir Ashton Lever. That gentleman, struck with the singularity of the sight, furnished the person who brought it with a large shell, desiring him to fix it just where the owl had hung. The man did so; and in the following year a pair of Swallows, probably the same, built their nest in the shell, and laid eggs.

Modern poets have not been unmindful of the Swallows; and our immortal Shakspeare mentions the martin, in *Macbeth*, in the following manner :

This guest of summer,
The temple haunting Martlet, does approve,
By his loved masonry, that Heaven's breath
Smells wooingly here. No jutting frieze,
Buttress, or coignes of 'vantage, but this bird
Hath made his pendent bed and procreant cradle :
Where they most breed and haunt, I have observed
The air is delicate.

The house Swallow is on the head, neck, back, and rump of a shining black colour, with purple gloss, and sometimes with a blue shade; the throat and neck are of the same colour; the breast and belly are white, with a dash of red. The tail is forked, and consists of twelve feathers. The wings are of the same colour with the back. Swallows feed upon flies, worms, insects; and generally hunt their prey on the wing.

From the low-roof'd cottage ridge,
See the chattering Swallow spring;
Darting through the one-arch'd bridge,
Quick she dips her dappled wing.

CUNNINGHAM.



THE MARTIN.

THESE birds begin to appear about the middle of April, and for some time they pay no attention to the business of nidification, but sport and play about, either to recruit themselves from the fatigue of the journey, or else that their blood may recover its true tone and texture, after having been so long benumbed by the severities of the winter. The Martin is something less than the swallow, with a great head comparatively, and a wide mouth; the colour a bluish black, and bill white; its legs covered with short white down. As this bird often builds against a perpendicular wall, without any projecting ledge under, its utmost efforts are necessary to get the first foundation firmly fixed, so as to carry safely the superstructure. On this occasion, the bird not only clings with its claws, but partly supports itself by strongly inclining its tail against the wall, making that a fulcrum; and, thus fixed, it plasters the materials into the face of the brick or stone. But that this work may not, while soft, incline down by its own weight, the provident architect has the prudence and forbearance not to proceed too fast; but by building only in the morning, and dedicating the rest of the day to food and amusement, he gives it

sufficient time to dry and harden. By this method, in about ten days, the nest is formed, strong, compact, and warm, and perfectly fitted for all the purposes for which it is intended. But nothing is more common than for the house sparrow, as soon as the shell is finished, to seize on it, eject the owner, and line it according to its own peculiar manner. The Martin will return for several seasons to the same nest, where it happens to be well sheltered and secured from the injuries of the weather. They breed the latest of all our swallows, never being without unfledged young ones, even so late as Michaelmas.



THE STARE, OR STARLING,

Is about the size and shape of a blackbird; the tips of the feathers on the neck and back are yellow; the feathers under the tail of an ash colour; the other parts of the plumage are black, with a purple or deep blue gloss, changing as it is variously exposed to the light. In the hen, the tips of the feathers on the breast and belly, to the very throat, are white; which constitutes a material point in the choice of the bird, as the female is no singer. She lays four or five eggs, lightly tintured with a greenish cast of blue. They build in

hollow trees and clefts of rocks, are very easily tamed, and can add to their natural notes any words or modulation they are taught to learn.

In the winter season Starlings collect in vast flocks, and may be known at a great distance by their whirling mode of flight. The evening is the time when they assemble in the greatest numbers, and betake themselves to fens and marshes. Sterne has immortalized the Starling in his *Sentimental Journey*:—"The bird flew to the place where I was attempting his deliverance, and, thrusting his head through the trellis, pressed his head against it, as if impatient.—I fear, poor creature, said I, I can't set thee at liberty.—'No,' said the Starling, 'I can't get out,—I can't get out.' Disguise thyself as thou wilt, still, slavery, said I,—still thou art a bitter draught!"



THE WATER OUZEL, OR WATER CRAKE,

Is nearly as big as the common blackbird. He is an English bird, and is found in most counties of the island. He feeds upon fish, yet does not refuse insects when hungry. The head and upper side of the neck are of a kind of umber colour, and sometimes black with a shade of red; the back and coverings of the

wings are a mixture of black and ash colour, the throat and breast perfectly white.

The most peculiar trait in this bird's character is, that he can walk on the pebbly bottom of a shallow stream, in quest of small minnows, as easily as he does on land, without being staggered by the rapidity of the current.

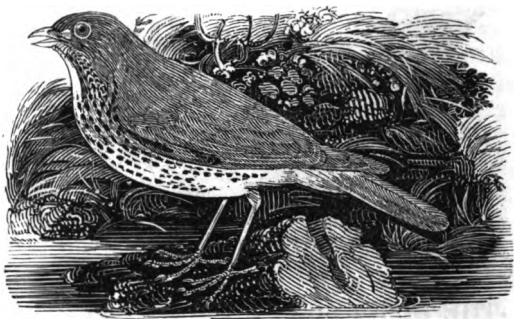
Buffon states that a correspondent communicated to him the following interesting account of this bird:—
“While concealed on the verge of the lake Mantua, a Water Ouzel stopped near me for an hour; and I had full leisure to observe its manœuvres. It traversed the whole of the bottom, and in so doing seemed not to have changed its element, and discovered no hesitation nor reluctance in the immersion. However, I perceived several times, that as often as it waded deeper than the knee, it displayed its wings, and allowed them to hang to the ground. I remarked too, that, when I could discern it at the bottom of the water, it appeared enveloped with air, which gave it a brilliant surface; like that on some sorts of beetles, which in water are always enclosed in a bubble of air. Its view, in dropping its wings on entering the water, might be to confine the air; it was certainly never without some, and it seemed to quiver. These singular habits were unknown to all the sportsmen with whom I talked on the subject.”

The Water Ouzel will sometimes pick up insects at the edge of the water. When disturbed, it usually flirts up its tail, and makes a chirping noise. Its song in spring is said to be very pretty. In some places this bird is supposed to be migratory.



THE BLACKBIRD, OR BLACK OUZEL.

THIS well known songster does not soar up to the clouds, like the lark, to make his voice resound through the air ; but keeps steady in the shady groves, which he fills with his melodious notes. Early at dawn, late at dusk, he continues his pleasing melody ; and when incarcerated in the narrow space of a cage, cheerful still and merry, he strives to repay the kindness of his keeper by singing to him his natural strains ; and beguiles his irksome hours of captivity, by studying and imitating his master's whistle. They build their nest with great art, making the outside of moss and slender twigs, cemented together and lined with clay, and covering the clay with soft materials, as hair, wool, and straw. The female lays four or five eggs, of a bluish green colour, all spotted with brown. The bill is yellow, but in the female the upper part and point are blackish ; the inside of the mouth, and the circumference of the eyelids, are yellow. The name of this bird is sufficiently expressive of the general colour of his body. He feeds on berries, fruit, insects, &c. The species of this bird in Surinam and South America is not of so deep a black ; the throat and part of the breast are of a crimson colour.



THE THRUSH, OR THROSTLE,

Is one of the best “quiristers” of the evening hymn in the grove. His tone is loud and sweet; the melody of his song is varied, and, although not so deep in the general diapason of the woodland concert, as that of the blackbird, yet it fills up agreeably, and bursts through the inferior warblings of smaller performers. His breast is of a yellowish white, all over spotted with black or brown dashes, like ermine spots. The *Missel Thrush*, so called from his feeding on the berries of the misselto, differs but little from the Song Thrush, except in size. He is larger than the fieldfare, while the Throstle is smaller. These birds lay five or six bluish eggs, with a tint of green, and marked with dusky spots. The terms merle for the blackbird, and Mavis for the Thrush, are used chiefly by the poets.

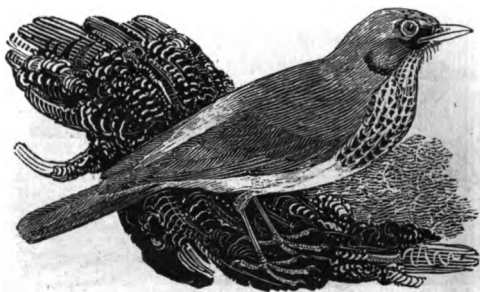
Merry is it in the good green wood,
 When the Mavis and merle are singing,
 When the deer sweeps by and the hounds are in cry,
 And the hunter's horn is ringing, SCOTT.

Take thy delight in yonder goodly tree,
 Where the sweet merle and warbling Mavis be. DRAYTON.



THE REDWING, OR WIND THRUSH,

Is rather less than the thrush; but the upper side of the body is of the same colour; the breast not so much spotted; the coverings of the feathers of the under side of the wings, which in the thrush are yellow, are of orange colour in this bird; by which marks he is generally distinguished. The belly is white, the throat and breast yellowish, marked with dusky spots. He is a migratory bird in this island, builds his nest in hedges, and lays six bluish eggs. Like the fieldfare, this bird leaves us in spring, for which reason its song is quite unknown to us, but it is said to be very pleasing. It is delicate eating; the Romans held it in such estimation that they kept thousands of them together in aviaries, and fed them on a sort of paste made of bruised figs and flour, and various other kinds of food, to improve the delicacy and flavour of their flesh. Under this management these birds fattened, to the great profit of their proprietors, who sold them to Roman epicures for three denarii, or about two shillings sterling each.



THE FIELDFARE

Is a well known bird in this country. They fly in flocks, together with the redwing and starlings, and shift places according to the season of the year. They abide with us in winter, and disappear in spring, so punctually, that after that time not one is to be seen. The flesh is esteemed a great delicacy. Some authors give us a description of their nest; while, on the contrary, some others assure us that no man ever saw them build and breed in Great Britain. The head is ash-coloured, and spotted with black; the back and coverts of the wings of a deep chesnut colour; the rump cinereous; and the tail black, except the lower part of the two middle feathers, which are ash-coloured, and the upper sides of the exterior feathers, which are white. They collect in large flocks; and it is supposed they keep watch, like the crow, to remark and announce the approach of danger. On any person approaching a tree that is covered with them, they continue fearless, till one at the extremity of the bush, rising on its wings, gives a loud and peculiar note of alarm. They then all fly away, except one other, which continues till the person approaches still nearer, to certify, as it were, the reality of the danger, and afterwards he also flies off, repeating the note of alarm.



THE LARK

Is generally distinguished from other sorts of birds, by the long spur of his back toe, the earthy colour of his feathers, and his singing as he mounts up in the air. The common Skylark is not much bigger than the house sparrow. He builds his nest sometimes in the plain under some high grass, and the tint of his plumage resembles so much the ground on which he hops along, that the body of the bird is hardly perceptible upon it. They breed thrice a year, in May, July, and August, rearing their young in a short space of time. Young nestlings may be brought up almost with any meat, but sheep's heart and eggs chopped together seem to agree best with their stomachs. They are caught in great quantities in winter, and are reckoned a delicate food amongst our best dishes. It is a melancholy observation, that man should feed upon, and indulge his sense of taste with, those very birds who have so often delighted the sense of hearing with their songs, when they usher to the gladdened creation the return of their best friend, the sun. The instinctive warmth of attachment which the female

Skylark bears towards her own species, often discovers itself at a very early period, and even before she is capable of becoming a mother, which might be supposed to precede, in the order of nature, the maternal solicitude. "In the month of May," says Buffon, "a young hen bird was brought to me, which was not able to feed without assistance. I caused her to be educated; and she was hardly fledged, when I received, from another place, a nest of three or four unfledged Larks. She took a strong liking to these new comers, which were scarcely younger than herself; she tended them night and day, cherished them beneath her wings, and fed them with her bill. Nothing could interrupt her tender offices. If the young ones were torn from her, she flew to them as soon as they were liberated, and would not think of effecting her own escape, which she might have done a hundred times. Her affection grew upon her; she neglected food and drink; she at length required the same support as her adopted offspring, and expired at last, consumed with maternal solicitude. None of the young ones survived her. They died one after another; so essential were her cares, which were equally tender and judicious."

Thomson gives us a very pleasing description of this little creature:—

—————Up springs the Lark,
 Shrill-voiced and loud, the messenger of morn;
 Ere yet the shadows fly, he, mounted, sings
 Amid the dawning clouds, and from their haunts
 Calls up the tuneful nations.

Burns also gives a beautiful description of the Lark, in his Address to the Daisy:

Alas! it's no thy neebor sweet,
 The bonnie Lark, companion meet!
 Bending thee 'mang the dewy weat!
 Wi' speckled breast,
 When upwards springing, blythe to greet
 The purpling east.

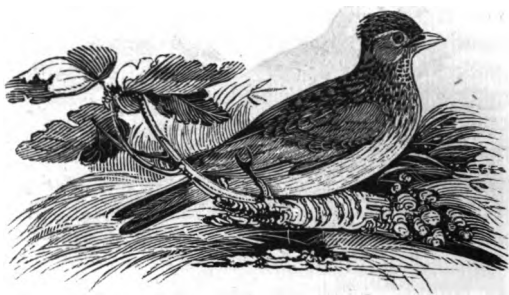


THE WOODLARK

Is smaller than the skylark, and his voice deeper
The general character of the kind is found again in
this bird, but the difference consists chiefly in his
having a circle of white feathers encompassing the
head, from eye to eye, like a crown or wreath, and
the utmost feather of the wing being much shorter
than the second, whereas in the common lark they
are nearly equal. This bird sometimes emulates the
nightingale; and, when pouring his sweet melody in
the grove, during a silent night, he is often mistaken
for Philomel herself. These birds sit and perch upon
trees, which habit the common lark has not, being
always found on the ground. They build their nest at
the foot of a bush, near the bottom of a hedge, or in
high dry grass. The number of eggs is about four;
these are of a pale bloom colour, beautifully mottled,
and clouded with red and yellow. Like the skylark,
they assemble in large flocks during frosty weather.
Their usual food consists of small beetles, caterpillars,
and other insects, as well as the seeds of numerous
kinds of wild plants.

Bright o'er the green hills rose the morning ray,
The Woodlark's song resounded on the plain,
Fair Nature felt the warm embrace of day,
And smiled through all her animated reign.

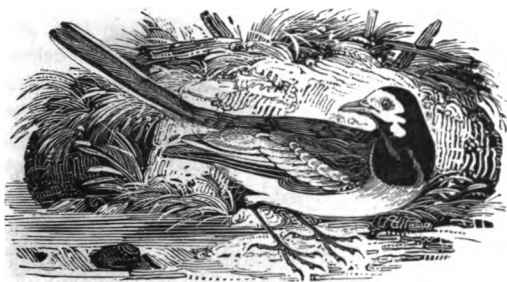
LANGHORNE.



THE CRESTED LARK

Is another branch of the family of the Larks, and differs from the common ones in several particulars. The colour of the plumage is more uniform, but fainter and less beautiful; he has a shorter tail, and differs also in size; besides, he does not soar up so high in the air, and, when he mounts up, cannot remain so long on the wing. They do not assemble together in flocks as the others do, and are often seen about the banks of lakes and rivers. But the principal and most striking point of difference resides in the crest, which the bird can raise or depress at pleasure.

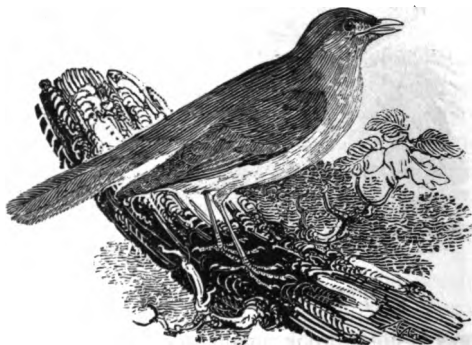
The Grasshopper Lark is the smallest of this species. Its bill is slender and dusky. The upper parts of the body are of a variegated greenish brown; the under parts of a yellowish white, speckled irregularly on the neck and breast. The feathers of the wings and tail are of a palish dusky brown. The tail is long, and somewhat wedge-shaped. Its hind claws, though shorter and more crooked than those of the skylark, sufficiently mark its kind. It builds its nest on the ground, and conceals it beneath a turf; the female lays five eggs, marked with brown near the larger end.



THE WATER WAGTAIL.

THERE is not a brook purling along between the green confinement of two flowery hedges, not a rivulet winding through the green meadow, not a river pacing across the country, which is not frequented by this handsomely coloured and elegantly shaped little creature. We even see him often in the streets of country towns, following, with a quick pace, the half drowned fly or moth, which the canal stream carries away. Next to the robin redbreast and the sparrow, they come nearest to our habitations. They are too well known to need description.

However, we must mention two different species of this bird. The white or common Wagtail has a black breast; in the other the breast and belly are yellow. The Wagtails are much in motion; seldom perch, and perpetually flirt their long and slender tail, principally after picking up some food from the ground, as if that tail were a kind of lever or counterpoise, used to balance the body on the legs. They are observed to frequent, more commonly, those streams where women come to wash their linen; probably not ignorant, that the soap, the froth of which floats upon the water, attracts those insects which are most acceptable to them.



THE NIGHTINGALE.

Sweet bird, that shunn'at the noise of folly,
Most musical, most melancholy !
Thee, chantress, oft, the woods among,
I woo, to hear thy even song.

MILTON.

THE Nightingale has little to boast, if we consider its plumage, which is of a pale tawny colour on the head and back, dashed with a little shade of olive; the breast and upper part of the belly incline to a grayish tint, and the lower part of the belly is almost white; the exterior web of the quill feathers is of a reddish brown; the tail of a dull red; the legs and feet ash-coloured; the irides hazel; and the eyes large, bright, and staring. It is hardly possible to give an idea of the extraordinary power which this small bird possesses in his throat, as to extension of sound, sweetness of tone, and versatility of notes. Its song is composed of several musical phrases, each of which does not continue more than the third part of a minute, but

they are so varied; the passing from one tone to another is so fanciful, and so rapid; the melody so sweet, and so mellow; that the most consummate musician is pleasingly led to a deep sense of admiration at hearing it. Sometimes joyful and merry, it runs down the diapason with the velocity of lightning, touching the treble and the bass nearly at the same instant; at other times, mournful and plaintive, the unfortunate *Philomela* draws heavily her lengthened notes, and breathes a delightful melancholy around. These have the appearance of sorrowful sighs; the other modulations resemble the laughter of the happy. Solitary on the twig of a small tree, and cautiously at a certain distance from the nest, where the pledges of his love are treasured under the fostering breast of his mate, the male fills constantly the silent woods with his harmonious strains; and during the whole night entertains and repays his female for the irksome duties of incubation. For it is not when the harsh and sometimes discordant concert of the other songsters is at full play, that the Nightingale wastes his songs to the astounded coppices; he waits till the blackbird and the thrush have uttered their evening call, even till the stock and ring doves have by their soft murmurings lulled each other to rest, and then he displays, at full, his melodious faculties.

—————Listening *Philomela* deigns,
To let them joy, and purposes in thought
Elate, to make her night excel their day.

THOMSON.

It is a great subject of astonishment, that so small a bird should be endowed with such potent lungs. If the evening is calm, it is supposed that its song may be heard above half a mile. This bird, the ornament and charm of our spring and summer evenings, disappears on a sudden, and as it cannot be ascertained

where it retires, it has been placed generally among the birds of passage; but its wings not being calculated to bear it long through the skies, we cannot easily believe that it flies far away. The disappearance or emigration of birds, is, as we have observed above, a mystery still concealed behind the awful veil of Nature. Nightingales are sometimes reared up, and doomed to the prison of a cage; in this state they sing ten months in the year, though in their wild life they only sing as many weeks; Bingley says that a caged Nightingale sings much more sweetly than those which we hear abroad in the spring.

The Nightingale is the most celebrated of all the feathered race for its song. The poets have in all ages made it the theme of their verses; a few of these we cannot resist giving:

—————Beast and bird,
They to their grassy couch, these to their nests,
Were slunk; all but the wakeful Nightingale;
She all night long her amorous descant sung;
Silence was pleased. MILTON.

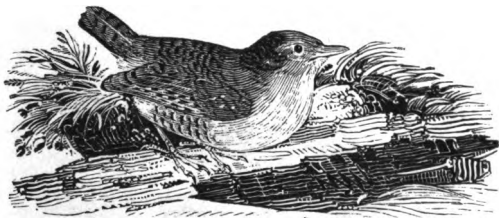
And in the violet-embroider'd vale,
Where the love-lorn Nightingale
Nightly to thee her sad song mourneth well.
MILTON.

O Nightingale, that on yon bloomy spray
Warblest at eve, when all the woods are still,
Thou with fresh hope the lover's heart dost fill,
While the jolly hours lead on propitious May.
Thy liquid notes that close the eye of day,
First heard before the shallow cuckoo's bill,
Portend success in love; Oh, if Jove's will
Have link'd that amorous power to thy soft lay,
Now timely sing, ere the rude bird of hate
Foretell my hopeless doom in some grove nigh;
As thou from year to year hast sung too late
For my relief, yet hadst no reason why:
Whether the muse, or love, call thee his mate,
Both them I serve, and of their train am I.
MILTON.

Sweet poet of the woods—a long adieu !
 Farewell, soft minstrel of the early year !
 Ah ! 'twill be long ere thou shalt sing anew,
 And pour thy music on the "night's dull ear."
 Whether on spring thy wandering flights await,
 Or whether silent in our groves you dwell,
 The pensive muse shall own thee for her mate,
 And still protect the song she loves so well.

With cautious step the lovelorn youth shall glide
 Through the long brake that shades thy mossy nest,
 And shepherd girls from eyes profane shall hide
 The gentle bird who sings of pity best ;
 For still thy voice shall soft affection move,
 And still be dear to sorrow and to love !

CHARLOTTE SMITH.



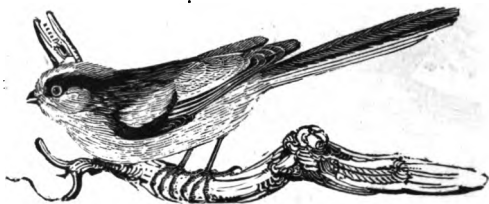
THE WREN.

Fast by my couch, congenial guest,
 The Wren has wove her mossy nest ;
 From busy scenes and brighter skies
 To lurk with innocence, she flies ;
 Her hopes in safe repose to dwell,
 Nor aught suspects the silvan cell.

T. WHARTON.

THE Wren is a very small bird ; indeed, one species, the golden-crested, is the smallest in Europe ; but, as if nature had intended to compensate the want of size and bulk in the individuals, by multiplying them to a greater amount, this little bird is perhaps one of the

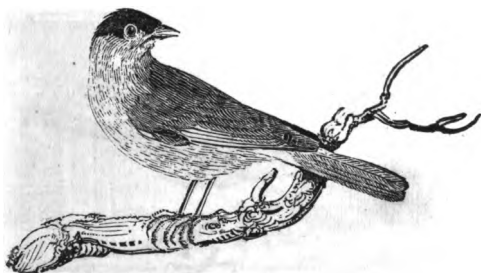
most prolific; for the nest, which is of the shape and size of the egg of a common hen, contains often upwards of eighteen eggs of a whitish colour, and not much bigger than a pea. The male and female enter this repository by a hole contrived in the middle of the nest, and which, by its situation and size, is accessible to none beside themselves. The Wren weighs no more than three drachms. The notes of this bird are very sweet, and rival the songs of the robin redbreast, in the middle of winter, when the coldness of the weather has condemned the other songsters to silence. Let us remark how astonishing it is, that so small a bird should be able to hatch so many eggs under the confined space of her little breast, and what attention, what care is wanted to bring up so large a family.



THE TITMOUSE

Is a small bird, which presents us with a curious anomaly; namely, that his tongue is split at the end into four distinct filaments. The head is curiously coloured; the beak is generally black, with strong hairs at its base. The head and throat are of the same colour, the belly of a yellowish green; the back and coverts of the wings green, and the rump inclining to blue; the tail is black, but touched with blue at its exterior edges. This bird, and all the species related

to him, live on insects, as well as on seeds. When kept in a cage, it is really amusing to see with what quickness the Titmouse darts at the fly or moth, which comes imprudently within his reach. If this kind of food be deficient, as generally happens in winter, he then feeds upon several kinds of seed, and particularly that of the sunflower, which he dexterously holds upright between his claws, and strikes powerfully with his sharp little bill, till the black covering splits, and yields its white contents to the hammering bird. They build their nest with great ingenuity; and the female lays sometimes upwards of twenty eggs.



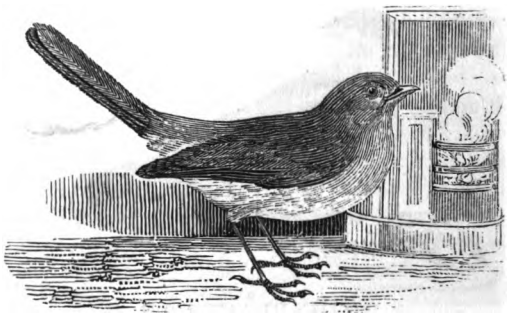
THE BLACK-CAP

Is a very small bird, of the titmouse kind, not weighing above half an ounce. The top of the head is black, whence he takes his name; the neck ash-coloured, the whole back a dark green; the wings of a dusky colour, with green edges; the tail nearly the same; the nether part of the neck, throat, and upper part of the breast of a pale ash-colour; the lower belly white, tintured with yellow.

The Black-cap visits us about the middle of April, and retires in September; it frequents gardens, and builds its nest near the ground. The female lays five

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eggs, of a pale reddish brown, sprinkled with spots of a darker colour. This bird sings sweetly, and so like the nightingale, that in Norfolk it is called the mock nightingale. White observes that it has usually a full, sweet, deep, loud, and wild pipe, yet the strain is of short continuance, and its motions desultory; but when it sits calmly, and in earnest engages in song, it pours forth very sweet but inward melody; and expresses great variety of sweet and gentle modulations, superior perhaps to any of our warblers, the nightingale excepted; and, while it sings, its throat is wonderfully distended.



THE REDBREAST.

The Redbreast oft, at evening hours,
 Shall kindly lend his little aid,
 With hoary moss, and gathering flowers,
 To deck the ground where thou art laid.

COLLINS.

THE Redbreast, or *Robin*, as he is popularly called, seems always to have enjoyed the protection of man, more than any other bird. The prettiness of his shape, the beauty of his plumage, the quickness of his motions, his familiarity with us in winter, and, above all, the melody and sweetness of his voice, claim our

admiration, and have insured him that security he enjoys among us; though the aid of fable has also been called in, to guard him from the assaults of thoughtless boys. In the winter season, impelled by the potent stimulus of hunger, he frequents our barns, our gardens, our houses, and often alights, on a sudden, on the rustic floor; there, with his broad eye incessantly open, and looking askew upon the company, he picks up eagerly the crumbs of bread that fall from the table, and then flies off to the neighbouring bush, where, by his warbling strains, he expresses his gratitude for the liberty he has been allowed. He is found in most parts of Europe, but no where so commonly as in several counties of England. His bill is dusky; the forehead, chin, throat, and breast are of a deep orange colour, inclining to vermilion; the back of the head, neck, back, and tail are of ash colour, tinged with green; the wings are somewhat darker, the edges inclining to yellow; the legs and feet are dusky. He builds his nest in the crevice of some mossy bank, and sometimes secretes it in the thickest coverts. The elegant Poet of the Seasons gives us a very exact and animated description of this bird in the following lines:—

—————Half afraid, he first
Against the window beats: then, briak, alights
On the warm hearth; then, hopping on the floor,
Eyes all the smiling family askance,
And pecks, and starts, and wonders where he is,
Till, more familiar grown, the table crumbs
Attract his slender feet.

An old Latin proverb tells us, that two Robin Red-breasts do not feed on the same tree. We cannot vouch for the truth of this; but it is certain that the Redbreast is a solitary bird, and that he does not live in much harmony and friendship with those of his kind. The male may be known from the female by the colour of his legs, which are blacker.



THE SPARROW

Is, next to the robin redbreast, the boldest of the small feathered tribe, which frequent our barns and houses; he is a courageous little creature, and fights undauntedly against birds ten times bigger than himself. We have seen the Sparrow introducing himself into pigeon-houses; and in spite of the outraged parents, and unmindful of their wings, with which they endeavour to keep the intruder away, opening with their sharp and short beak the naked craw of the young ones, and feeding on the half-digested grain which it contained. The quantity of corn they consume is so considerable, that in several countries the landlord or farmer puts a price on a Sparrow's head, and, by this means, rids his lands of this troublesome depredator; but it is believed that the good they do in ridding land of caterpillars, more than compensates for the loss.—Mr. Bradley, in his Treatise on Husbandry and Gardening, shows, by a calculation, that a pair of Sparrows, during the time they have their young ones to feed, destroy on an average, every week, three thousand three hundred and sixty caterpillars.

This bird is easily tamed, and will hop about the house, and on the table, with great familiarity. They feed on any thing, and are particularly fond of meat

cut into small pieces. Their song, if we can so call their chirping, is far from being agreeable. The male is particularly distinguished by a jet black spot under the bill upon a whitish ground. They are found nearly in every country of the world. The Hedge Sparrow is a smaller variety of the bird above described, and is called in French, *Friquet*.



THE BULLFINCH

Is a very docile bird, and will nearly imitate the sound of a pipe, or the whistle of man, with its voice, the mellowness of which is really charming. He is, by bird-fanciers, supposed to excel all other small birds, by the softness of his tones and variety of his notes, except the linnet. In domesticity, we should rather say, in captivity, his melody seems to be as great a solace to himself as a pleasure to his master. By day, and even when the evening has called for the artificial light of candles, he pursues his melodious exertions, and if there be any other birds in the apartment, wakes them gently to the pleasing task of singing in concert with him. His notes are upon one of the lowest keys of the gamut of birds.—Thomson says :

The mellow Bullfinch answers from the grove.

SPRING.

His plumage is beautiful, though simple and uniform, consisting only of three or four shades of colours. In the male, a lovely scarlet or crimson colour adorns the breast, throat, and jaws, as far as the eyes; the crown of the head is black; the rump and tail white; the neck and back gray, or lead-coloured. The name of this bird originates from his head and neck, like those of the bull, being very large in proportion to the body. The female does not share with the male the brightness of colours on her plumage. They build their nests in gardens and orchards, and particularly in places that abound in fruit trees, as they are passionately fond of young fruit, which they often destroy before it is ripe.



THE GOLDFINCH

Is also called *Thistlefinch*, from his fondness for the seed of this plant. He is a very beautiful bird; his plumage is elegantly diversified. His form is small, but pleasing; his voice not loud, but sweet. He is easily tamed, and often exhibited as a captive, with a chain round his body, drawing up with trouble, but yet with amazing dexterity, two small buckets, alter-

nately, one containing his meat, the other his drink. We remember one who, after having been doomed a whole year to this drudgery, and having nipped off a link of his chain, remained spontaneously a captive for several months, ere, by some accident, his master became conscious of his bird being under no constraint, and at full liberty. It is, perhaps, a melancholy but yet a true observation, that mankind is less patient of freedom than of slavery; and that men, like brutes, know better how to make good use of the latter than of the former. When caught old, the Goldfinch, after a few weeks, if well attended to, and gently treated, becomes as familiar as if he had been brought up by the hand of his keeper. Some have been taught to fire a small piece of artillery, and go through the drilling exercise, to the great astonishment of the spectators: but the cruel and severe treatment that animals undergo, when taught performances altogether contrary to their nature, should prevent us from encouraging such exhibitions.

This bird, as if conscious of the beauty of his plumage, likes to view himself in a glass, which is sometimes fixed for this purpose in the back of the cage. The art with which these birds compose and build their nests, is really an object of admiration; it is generally interwoven with moss, small twigs, horse-hair, and other pliant materials; the inside stuffed, most carefully, with a fine down. There the female deposits five or six eggs, of a white colour, marked at their upper end with purple dots. It is reported that this small creature exceeds the general rules of life among those of his size, and often lives twenty years.

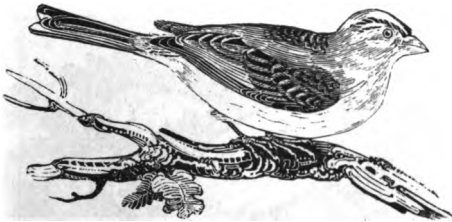


THE LINNET

Is about the size of the goldfinch ; and compensates, by a still more melodious voice, the want of variety in his plumage, which, except in the red-breasted species, is nearly all of one colour. His musical talents are, like those of many other birds, repaid with captivity ; for he is kept in cages on account of his singing.

The red-breasted Linnet, or Redpole, generally builds here on the sea coast, and on the continent in vineyards ; but that livery of nature, the crimson scarf, that glows so beautifully under his neck, disappears as soon as the bird is domesticated. None but those who enjoy freedom are the favourites of Nature ! This bird is one of the first whose appearance announces the spring.

The Green Linnet is rather larger than the house sparrow. Its head and back are of a yellowish green, the edges of the feathers grayish ; the rump and breast more yellow. The plumage of the female is much less vivid, inclining to brown. Its song is trifling, but in confinement it becomes tame and docile, and will catch the notes of other birds.



THE YELLOWHAMMER

Is somewhat larger than the sparrow. Its head is of a greenish yellow, spotted with brown; the throat and belly are yellow; the breast and sides, under the wings, mingled with red; and the bird has a pretty note, not unlike that of the linnet. They build their nests on the ground, near some bush, where the female lays five or six eggs. This bird is often seen perched on the finger of some poor man or woman in the streets of London, in a state of complete tameness; but we understand that it is the transitory effect of intoxication, and that soon after the bird is bought and brought home, it dies, overcome by the power of the laudanum that has been given him.

This bird feeds on various sorts of insects, and all kinds of seeds, and is common in every lane, on every hedge throughout the country, flitting before the traveller, and fluttering about the bushes on the side of the road. Happily for him we have not yet acquired the taste of the natives of Italy, where the Yellowhammer falls a daily victim to the delicacy of the table, and where his flesh is esteemed very luscious eating. There he is often fattened, like the ortolan, a different species of the same genus, for the purpose of gratifying the palate of epicures.



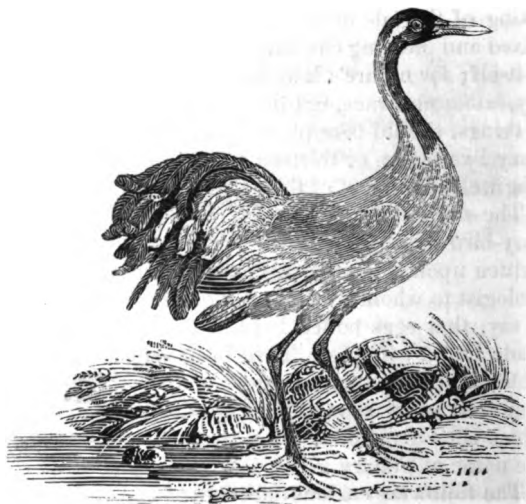
THE CANARY-BIRD,

As his name imports, is a native of the Canary Islands ; where, in his wild state, he has a dusky gray plumage, and a much stronger voice than when in a cage. In our northern countries his feathers undergo a great alteration ; and the bird becomes entirely white or yellow. This effect of cold, upon animals of all kinds, is general and progressive, according to the distance of the climate from the equator. This bird, who, with a sweet voice and agreeable modulations, has often been the agreeable companion and favourite amusement of sedentary ladies, breeds generally twice a year in domesticity ; and it happens sometimes, that the first brood is not yet fledged, when the female has laid her eggs for the second time. Then the male takes, good-naturedly, the place of the female, when she feeds the young ones ; and feeds them in his turn, when she sits in the nest. They are very easily tamed, when brought up with attention and kindness ; they take their food out of the hand, and often perching on the shoulder of their mistress, feed out of her mouth.

The Canary-bird is sometimes, and with success, matched with the linnet or the goldfinch; and the produce is a beautiful bird, called Mule, who, partaking of the talents and plumage of both, makes a mixed and pleasing character, and a temporary species of itself; for nature's laws have doomed them to sterility, lest a new race, not inserted in the original order of things, should take place by the ingenuity of man. They live twelve or thirteen years in our climate, and sing well to the end of their life.

The method of rearing the young ones of the Canary-bird has been often given by authors who have written upon this subject, but Buffon is the best ornithologist to whom we can refer our readers. Suffice it to say, that eggs boiled hard, with a little plain cake, made into a soft paste, have been esteemed the food which agrees best with young Canaries. When adult, they feed upon rape and hemp-seed; and the seed to which the vulgar have given, from that circumstance, the name of Canary.

The following curious anecdote of one of these birds is related by Dr. Darwin: "On observing a Canary-bird at the house of a gentleman near Tutbury, in Derbyshire, I was told it always fainted away when its cage was cleaned; and I desired to see the experiment. The cage being taken from the ceiling, and the bottom drawn out, the bird began to tremble, and turned quite white about the root of the bill: he then opened his mouth, as if for breath, and respired quick; stood up straighter on his perch, hung his wings, spread his tail, closed his eyes, and appeared quite stiff for half an hour; till at length, with much trembling and deep respirations, he came gradually to himself."



THE CRANE

Is a large bird, sometimes weighing ten pounds, which frequents marshy places, and lives upon small fish and water insects. Their long beaks enable them to search the water and mud for their prey, and their long necks prevent the necessity of stooping to pick up from between their feet the smallest objects of their search. The top of the head is black, destitute of feathers, and covered with a kind of hairs or bristles; the throat and sides of the neck are of a black hue; the back and coverings of the feathers and the belly are ash-coloured. They used to be common in those fen countries, Lincolnshire and Cambridgeshire; but they are not now so frequently seen in England as formerly. In their

flight, these birds mount high in the air, and although the bird ceases to be perceptible to the eye, yet his voice can be heard; and it is said that their sight is so keen, that they discover at a great distance any field of corn, or other food, which they are fond of, and presently alight and enjoy it. These depredations they generally commit during the night, and they trample down the ground as if it had been marched over by an army. They generally form themselves in the air into the shape of a wedge, in order to cut the adverse winds with greater facility. Milton expresses this circumstance with his usual superiority :

———Part more wise

In common, ranged in figure, wedge their way,
Intelligent of seasons, and set forth
Their airy caravan high over seas
Flying, and over lands, with mutual wing
Easing their flight. So steers the prudent Crane
Her annual voyage, borne on the winds. The air
Floats as they pass, fann'd by unnumber'd wings.

PARAD. LOST. VII.

This bird lives to a great age; and as he is easily tamed, it has been ascertained that the Crane often reaches his fortieth year.

When Cranes are assembled on the ground, they are said to set guards during the night; these stand watch on one leg, and hold in their right claw a stone of considerable weight; in order that, if overcome by sleep, the falling of the stone may awake them!

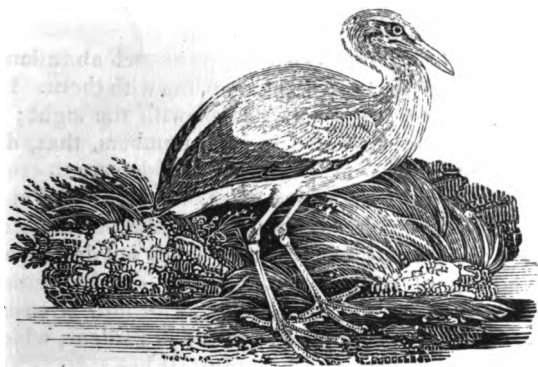
The ancient fable of the battles between the Cranes and the Pigmies, a supposed nation of dwarfs, inhabiting India, Thracia, and Æthiopia, though consecrated by the lore of the best poets, has long been exploded. Homer, Ovid, and several others, mention these ridiculous fights with more elegance than truth; and Juvenal derides them with his usual sarcastic sneer.



THE BALEARIC CRANE

Is originally, as the name expresses, a native of Majorca and Minorca, in the Mediterranean sea, but is chiefly found now in the Cape Verd Islands. The shape of his body is not unlike the common Crane, but he has a principal and distinctive mark on his head; that is, a tuft of hairs, or rather strong grayish bristles, spreading every way, and standing out like rays in every direction, which are a peculiarity belonging to this species, and from which he takes his other name of the Crowned Heron. They roost in the manner of the peacocks, and feed like them.

The *Numidian Crane* is well known for his antic gestures, when he perceives himself noticed by any body.



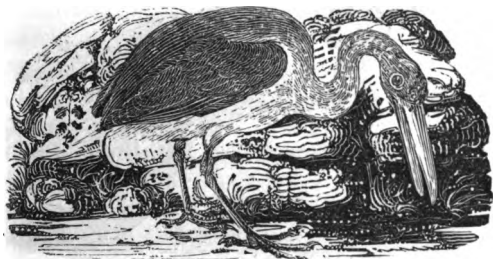
THE STORK.

THE neck, head, breast, and belly of this bird are white, the rump and exterior feathers of the wings black; the eyelids naked; the tail white; and the legs long, slender, and of a reddish colour. Storks are birds of passage, as it is supposed, although we cannot yet ascertain whither they migrate. When leaving Europe, they assemble together on some particular day, and all take their flight at night. This is a fact; but what remains to be explained is, by what instinct, or means, they are convoked together. As they feed on frogs, lizards, serpents, and other noxious creatures, it is not to be expected that man should be inimical to them, and therefore they have been generally and at all times a favourite with the nations they frequent. The Dutch have laws against destroying them: they are therefore very common in Holland; and build their nests, and rear their young, on the tops of houses and chimneys in the middle of its most frequented

and populous cities. The Stork resembles much the crane in his conformation, but appears somewhat more corpulent in the body. The former lays four eggs, whereas the latter lays but two.

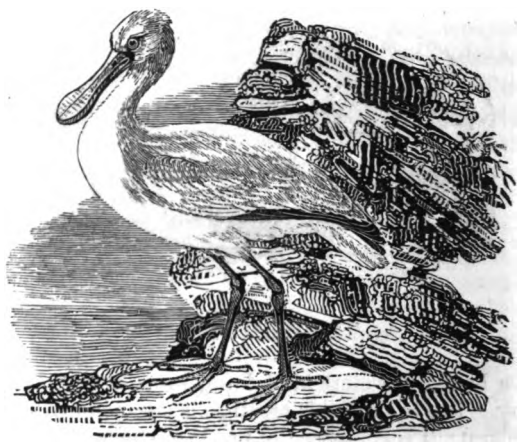
It is said that Storks visit Egypt in such abundance that the fields and meadows are white with them. Yet the Egyptians are not displeased with the sight; as frogs are there generated in such numbers, that, did not the Storks devour them, they would overrun every thing. Between Belba and Gaza, the fields of Palestine are often rendered desert on account of the abundance of mice and rats; and, were they not destroyed, the inhabitants could have no harvest. The disposition of the Stork is mild and placid. This bird is easily tamed, and may be trained to reside in gardens, which it will clear of insects and reptiles. It has a grave air, and a mournful visage: yet when roused by example, it exhibits a certain degree of gaiety; for it joins in the frolics of children, hopping about and playing with them: "In a garden," says an eye witness, "where the children were playing at hide-and-seek, I saw a tame Stork join the party, run its turn when touched, and distinguish the child whose turn it was to pursue the rest, so well, as, along with the others, to be on its guard."

During their migrations, Storks are observed in vast flocks. Dr. Shaw saw three flights of them leaving Egypt, and passing over Mount Carmel, each half a mile in width; and he says they were three hours in passing over.



THE ADJUTANT

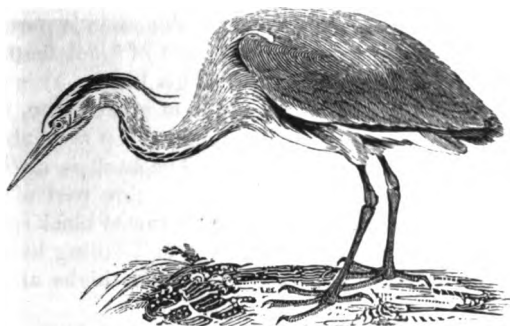
Is a bird of the stork kind, lately brought from Botany Bay. The beak of this creature is an anomaly among the rest; it is composed of two long sticks, apparently as if of wood, with which it makes a loud clattering noise, in order to clean them. The head is bare of feathers, hairs, or down; and also looks as if made of wood; in which the eye seems to be set, as if without lids or any cartilaginous appendages. Under the chin is a kind of bag, or purse, that seems adapted to receive the water they are obliged to swallow with the fish they feed on. The neck is not covered with feathers, but bare like that of the ostrich, and of a flesh colour. The covert of the wings and back are black, with a bluish cast; the under part of the body whitish; the legs are long, without feathers, and of a grayish hue; so are the thighs, which seem to be as slender as the leg. The articulation between the tibia and the femur is very perceptible, and larger than in any bird of the kind.



THE SPOONBILL

Is a large fowl ; the colour of the whole body is white, and the resemblance of the bill to a spoon has caused the denomination of the bird. In some species the plumage inclines from white to pink colour. On the hind part of the head is a beautiful white crest, reclining backward. The legs and thighs are black. The wisdom of Providence is also most conspicuous in the conformation of the bill, which seems entirely adapted to the habits and manner of feeding of these birds ; the frog and the lizard, which constitute the principal food of the Spoonbill, often escape the thin and narrow beak of the heron and others, but here the mandibles are so large at the end, that the prey cannot slip aside. Like the rooks and the herons, they build their nests on the top of high trees, lay three or four eggs, the size of those of a hen, of a white colour, sprinkled with

pale red, and are very noisy during the breeding season. The Spoonbill migrates northward in the summer, and returns to southern climes on the approach of winter; and is met with in all the intermediate low countries, between the Ferro Isles and the Cape of Good Hope.



THE HERON

DOES not seem, at first view, to have received from Providence that share of happiness which, with impartial hands, he has divided among the individuals that constitute the whole creation. His habits are peculiar to himself, and not to be envied by any other of the animals. Perched on a stone, or the stump of a tree, by the solitary current of a brook, his neck and long beak half buried between his shoulders, he will wait the whole day long, patiently and unmoved, for the passing of a small fish, or the hopping of a frog; but his appetite is insatiable. Willoughby says he has seen a Heron that had in his stomach no fewer than seventeen carp. Some gentlemen who kept tame

Hérons, were desirous of ascertaining what average quantity one of these birds would devour. They consequently put several small roach and dace into a tub; and the Heron, one day with another, eat fifty in a day. Thus a single Heron is able to destroy nine thousand score carp in half a year.

This bird is about four feet long from the tip of the bill to the end of the claws; to the end of the tail about thirty-eight inches; the breadth, when the wings are extended, is about five feet. The male is particularly distinguished by a crest or tuft of black feathers hanging from the hinder part of his head. This tuft or crest, in chivalrous times, was of great value, and held as a peculiar mark of distinction when worn above the plume of ostrich feathers. The back is clothed with down instead of feathers. The fore part of the neck is white, marked with a double row of black spots, the plumage being long, slender, and falling loosely over the breast; the breast, belly, and thighs are all white.

Virgil reckons the Heron among the birds that are affected by and foretell the approaching storm :

When watchful Herons leave their watery stand,
And mounting upwards with erected flight,
Gain on the skies, and soar above the sight.

DRYDEN.

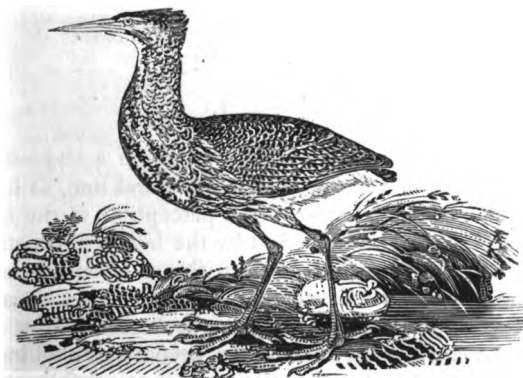
The Heron, though living chiefly in the vicinity of marshes and lakes, forms its nest on the tops of the loftiest trees, or on the pointed cliffs of the sea-shore; it sometimes takes possession of the abode of the crow or owl in their absence, and assumes courage enough to repel the original tenant. The female lays four large eggs, of a pale green colour; and the natural length of this bird's life is said to exceed sixty years.

In England, Herons were formerly ranked among the royal game, and protected as such by the laws;

and when falconry was in fashion, the pursuit of the Heron was a favourite amusement.

——— Now like a wearied stag,
That stands at bay, the Hern provokes their rage ;
Close by his languid wing, in downy plumes
Covers his fatal beak, and cautious hides
The well dissembled fraud. The falcon darts
Like lightning from above, and in her breast
Receives the latent death ; down plumb she falls,
Bounding from earth, and with her trickling gore
Defiles her gaudy plumage. See, alas !
The falconer in despair, his favourite bird
Dead at his feet ; as of his dearest friend,
He weeps her fate ; he meditates revenge,
He storms, he foams, he gives a loose to rage :
Nor wants he long the means ; the Hern fatigued,
Borne down by numbers, yields, and prone on earth
He drops : his cruel foes wheeling around
Insult at will.

SOMERVILE.



THE BITTERN

Is not quite so large as the common Heron ; his head is small, narrow, and compressed at the sides. The crown is black, the throat and sides of the neck are red with narrow black lines, the back of a pale red,

mixed with yellow. The claws are long and slender, and the inside of the middle claw is serrated, for the better holding of its prey. The most remarkable character in this bird is the hollow and yet loud rumbling of his voice; his bellowing is heard at the distance of a mile, at the time of sunset, and it is hardly possible to conceive at first how such a body of sound, resembling the lowing of an ox, can be produced by a bird comparatively so small. The booming noise was formerly believed to be made while the bird plunged its bill into the mud; hence Thomson,—

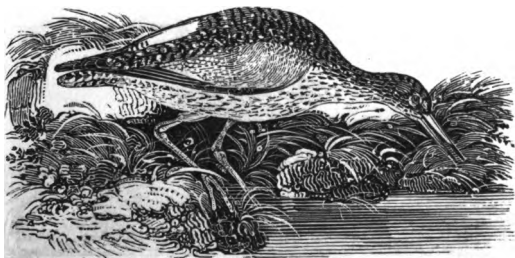
—————So that scarce
The Bittern knows his time, with bill ingulf'd
To shake the sounding marsh.

And Southey also describes the peculiar noise of this bird in his poem of Thalaba :

And when at evening, o'er the swampy plain,
The Bittern's boom came far,
Distinct in darkness seen—
Above the low horizon's lingering light,
Rose the near ruins of old Babylon.

Sometimes in the evening he soars on a sudden in a straight, or, at other times, in a spiral line, so high in the air, that he ceases to be perceptible to the eye. The Bittern, when attacked by the buzzard, or other birds of prey, defends itself with great courage, and generally beats off such assailants; neither does it betray any symptoms of fear when wounded by the sportsman, but eyes him with a keen undaunted look; and when driven to extremity, will attack him with the utmost vigour, wounding his legs, or aiming at his eyes with its sharp and piercing bill. It was formerly held in much estimation at the tables of the great, and is again recovering its credit as a fashionable dish. The flesh is considered delicious. The bill is four inches long, to enable him to seize upon his prey. In

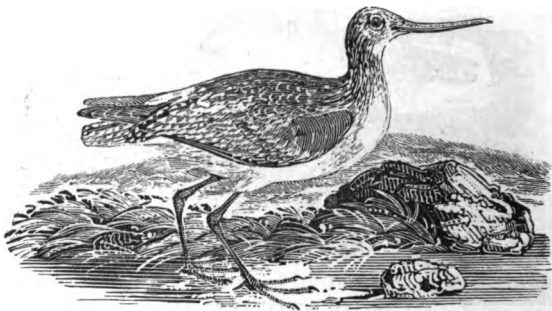
autumn it changes its abode, always commencing its journey, or change of place at sunset. Its precautions for concealment and security seem directed with great care and circumspection. It usually sits in the reeds with its head erect; and thus, from its great length of neck, it sees over their tops, without being itself perceived by the sportsmen. The principal food of the Bittern, during summer, consists of fish and frogs; but in autumn these birds resort to the woods in pursuit of mice, which they seize with great dexterity, and always swallow whole. About this season they usually become very fat.



THE REDSHANK

RECEIVED his name from the colour of his legs, which are of a crimson red. In size he may be reckoned between the lapwing and the snipe, and is sometimes called *Pool Snipe*. The head and back are of a dusky ash colour, spotted with black, the throat party-coloured black and white, the black being drawn down along the feathers. The breast whiter, with fewer spots. He delights in fen countries, and in wet and marshy grounds, where he breeds and rears his young. The

female lays four whitish eggs, with olive-coloured dashes, and marked with irregular spots of black. Pennant and Latham say, "it flies round its nest, when disturbed, making a noise like a lapwing." It is not so common on the sea-shore as several others of its kindred species. We must observe here, that this bird has often been mistaken for others. The fact is (and this might lead us into a dissertation too extensive for the bounds of our book), that several birds changing their plumage and increasing or diminishing their size according to their age, the season of the year, and the climate they live in, set all nomenclators at defiance, and confound all classifications.

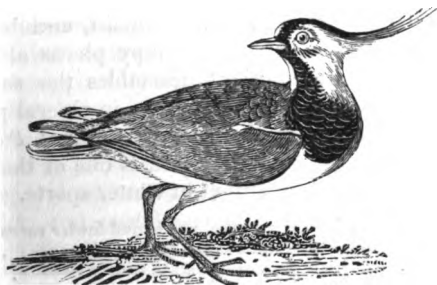


THE GODWIT

Is much like, and in size equal to, if not somewhat bigger than the woodcock. Buffon enumerates eight species of this division of the *scalopax* genus, under the name of *Borges*, including the foreign kinds; and Latham makes out the same number of different sorts, all British. The Godwit is met with in various parts of Great Britain. In spring and summer it resides in

the fens and marshes, where it rears its young, and feeds on small worms and insects; but in winter he seeks the salt marshes and the sea-shore, where he dexterously extracts with his slender beak the imprudent worm, that wriggles himself out as soon as the tide has retired. A peculiarity belonging to this bird is the shape of his bill, which is a little turned upwards. The head, neck, and back are of a reddish brown; the belly and vent white; the legs dusky, and sometimes black.

The Godwit is much esteemed, by epicures, as a great delicacy, and sells very high. It is caught in nets, to which it is allured by a *stale*, or stuffed bird, in the same manner and in the same season as the ruffs and reeves.



THE LAPWING, OR PEWIT,

Is a bird well known in all countries, and nearly every where to be met with. He is of the size of a common pigeon. The female lays four or five eggs, of a dirty yellow, varied all over with great black spots and strokes. They build their nests on the ground in the middle of some field or heath, open and exposed to view, laying only some few straws under the eggs: as soon as the young are hatched, they instantly forsake the nest, running away with the shell on their

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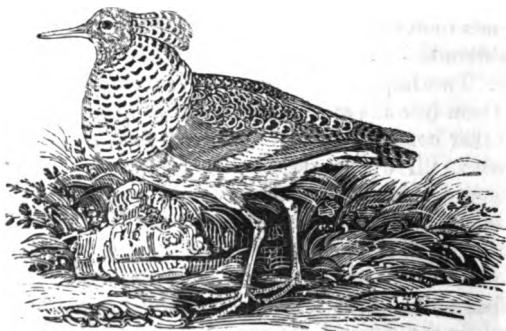
back, and following the mother, only covered with a kind of down like young ducks. The parents have been impressed by nature with the most attentive love and care for their offspring; for if the fowler, or any other enemy, come near the nest, the female, panting with fear, lessens her call to make her enemies believe that she is much farther off, and thereby deceives those that search for her covey. In some parts of this kingdom they are supposed to be migratory. This bird is really beautiful, although he does not exhibit that gaudiness of colours which other species of the feathered tribe can boast of: he weighs about half a pound. The head and the crest which elegantly adorn it, are black; this crest, composed of unwebbed feathers, is about four inches in length. The back is of a dark green, glossed with blue shades; the throat is black; the hinder part of the neck, the breast, and belly are white. His voice, on the swampy places along the sea-shores, heard at night, resembles the sound of *pewit*, or *tewit*, and hence his name in several parts of Great Britain; he is also called the *Great Plover* by several ornithologists. This bird is one of those who attract the fowler's attention in winter sports.

With slaughtering gun the' unwearied fowler roves,
 When frosts have whiten'd all the naked groves;
 Where doves in flocks the leafless trees o'ershade,
 And lonely woodcocks haunt the watery glade.
 He lifts his tube, and levels with his eye;
 Straight a short thunder breaks the frozen sky;
 Oft, as in airy rings they skim the heath,
 The clamorous Lapwings feel the leaden death:
 Oft, as the mounting larks their notes prepare,
 They fall, and leave their little lives in air.

POPE.

Buffon, with his usual sagacity, observes that this bird held a place between fish and fowl, in the bill of fare of the monks, who used to admit his flesh on their tables, in Lent, and other times of abstinence. When basted with vinegar at the spit, this bird becomes tolerably good eating, chiefly if young and fat.

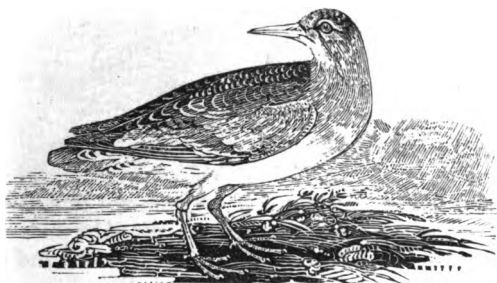
The following anecdote, from Bewick's History of Birds, exhibits the domestic nature of the Lapwing, as well as the art with which it conciliates the regard of animals materially differing from itself, and generally considered as hostile to every species of the feathered tribe. Two Lapwings were given to a clergyman, who put them into his garden; one of them soon died, but the other continued to pick up such food as the place afforded, till winter deprived it of its usual supply. Necessity soon compelled it to draw nearer to the house, by which it gradually became familiarized to occasional interruptions from the family. At length one of the servants, when she had occasion to go into the back-kitchen with a light, observed that the Lapwing always uttered his cry of "pee-wit," to obtain admittance. The bird soon grew more familiar; as the winter advanced, he approached as far as the kitchen, but with much caution, as that part of the house was generally occupied by a dog and cat, whose friendship, however, the Lapwing at length conciliated so entirely, that it was his regular custom to resort to the fire-side as soon as it grew dark, and spend the evening and night with his two associates, sitting close by them, and partaking of the comforts of a warm hearth. As soon as spring appeared, he discontinued his visits to the house, and betook himself to the garden; but on the approach of winter, he had recourse to his old shelter and friends, who received him very cordially. Security was productive of insolence; what was at first obtained with caution, was afterwards taken without reserve: he frequently amused himself with washing in the bowl which was set for the dog to drink out of; and while he was thus employed, he showed marks of the greatest indignation if either of his companions presumed to interrupt him. He died in the asylum he had thus chosen, being choked with something that he had picked up from the floor.



THE RUFF AND REEVE.

It is curious to see, in our observations upon natural objects, how the creative power of Providence seems to have tried all forms and shapes in the composition of species. In the cock bird a circle or collar of long feathers, somewhat resembling a ruff, encompasses the neck under the head, whence the bird took the name of Ruff. It is about a foot in length, with a bill about an inch long. There is a wonderful and almost infinite variety in the colours of the feathers of the males; so that in spring there can scarcely be found any two exactly alike. After moulting time they become all alike again. The hens are smaller than the cocks, and their feathers undergo no change. This small creature has been endowed with great natural courage. Spurred by love, the males fight desperately for the females, and the strongest often destroy many of their sex. The female is called a *Reeve*, and the flesh of this bird affords a very luscious meat. These are birds of passage, and arrive in the fens of Lincolnshire, and other

similar places in the spring. Mr. Pennant tells us, that in the course of a single morning, more than six dozen have been caught in one net; and that a fowler has been known to catch between forty and fifty dozen in a season.



THE KNOT

Is a small bird, whose head and back are of a dusky ash colour, or dark gray. The rump white, and varied with black lines. The breast and belly white. The sides under the wings spotted with brown. He weighs about four ounces and a half, and generally makes his appearance in Lincolnshire in the beginning of winter. They abide there for two or three months, and fly off in flocks. When the Knot is fat, his flesh is accounted excellent food. They are caught in great numbers by nets, into which they are decoyed by carved wooden figures, painted to represent itself, and placed within them, much in the same way as the ruff. It is also fattened for sale, and then considered equal to the ruff in flavour. The season for taking it is from August to November, after which the frost compels it to disappear.—This bird is said to have been a favourite dish with Canute the Great; and Camden observes that its name is derived from his—Knute, or Knout, as he was called, which, in process of time, has been changed to Knot.

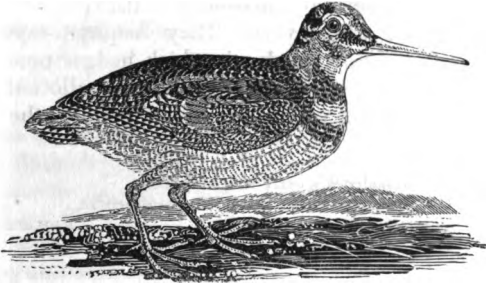


THE SNIPE

WEIGHS about four ounces. A pale red line divides the head in the middle longways; the chin under the bill is white; the neck is a mixture of brown and red; the breast and belly are almost wholly white. The back and wings are of a dusky colour. The flesh is tender, sweet, and of a very agreeable flavour, next to that of the woodcock. They feed especially upon small red worms, and upon insects, which they find in muddy and swampy places, on the shores of rivulets and brooks, and on the clayish margin of ponds. It is said that some Snipes remain with us all the summer, and build in moors and marshes, laying four or five eggs. The others are migratory. When forced by severe frosts to sheltered springs, they are often seen in large flights. Mr. Daniel states, that, about thirty years ago, Snipes were so abundant in the fens of Cambridgeshire, that as many were taken in Milton fen, by means of a lark-net, in one night, and by a single man, as could be contained in a small hamper.

The Snipe flies screaming from the marshy verge,
And towers in airy circles o'er the wood,
Still heard at intervals; and oft returns,
And stoops as bent to alight; then wheels aloft
With sudden fear, and screams and stoops again,
Her favourite glade reluctant to forsake.

GISBORNE.



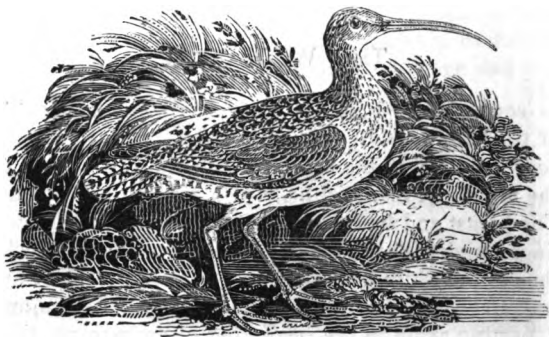
THE WOODCOCK

Is somewhat less than a partridge. The upper side of the body is party-coloured of red, black, and gray, very beautiful to the sight. From the bill almost to the middle of the head he is of a reddish ash colour. The breast and belly are gray, with transverse brown lines; under the tail the colour is somewhat yellowish; the chin is white with a tincture of yellow. They are migratory birds, coming over into Britain in autumn, and departing again in the beginning of spring; yet they pair before they go, and are seen flying two together.

The colours of this timid bird make him apparently like the withered stalks and leaves of fern, sticks, moss and grass, which form the back ground of the scenery, by which he is sheltered in his moist and solitary retreats. Only, by being accustomed to it, is the sportsman enabled to discover him, and his leading marks are the full eye and glossy silver white-tipped tail of the bird. The flesh is held in high estimation, and hence he is eagerly sought after by sportsmen. It is hardly necessary to notice, that in dressing it for the spit the entrails are not to be drawn, as, dropping

upon slices of toasted bread, they are relished as a delicious kind of sauce. By some late observations, it appears that several individuals of the species remain with us the whole year. They frequent especially wet and swampy woods, the thick hedges near rivulets, and places affording them their allotted food, which consists of very small insects found in the moist ground.

The Woodcock's early visit and abode
Of long continuance, in our temperate clime,
Foretell a liberal harvest. PHILIPS.



THE CURLEW.

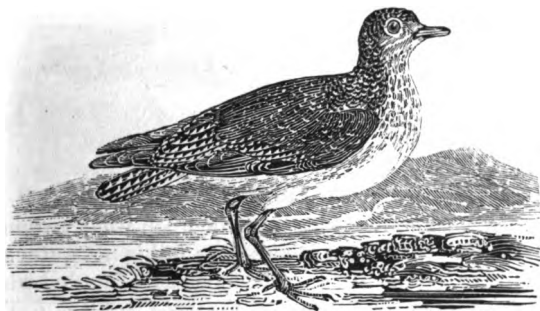
Soothed by the murmurs of the sea-beat shore,
His dun-gray plumage floating to the gale,
The Curlew blends his melancholy wail
With those hoarse sounds the rushing waters pour.
MISS WILLIAMS.

THE Curlew is a pretty large bird, weighing about twenty-four or five ounces. He is found on the sea-shore on all sides of England. The middle parts of the feathers of the head, neck, and back are black, the borders or outsides ash-coloured, with a mixture of

red; the rump and belly are white. The beak has a regular curve downward, and is soft at the point. This bird's flesh may challenge for flavour and delicacy that of any other waterfowl, and the people of Suffolk say proverbially:

A Curlew, be she white, be she black,
She carries twelve pence on her back:

but we must confess that the quality and goodness of their flesh depends on their manner of feeding, and the season in which they are caught. When they dwell on the sea-shore, they acquire a kind of rankness, which is so strong, that, unless they are basted on the spit with vinegar, they are not agreeable eating.

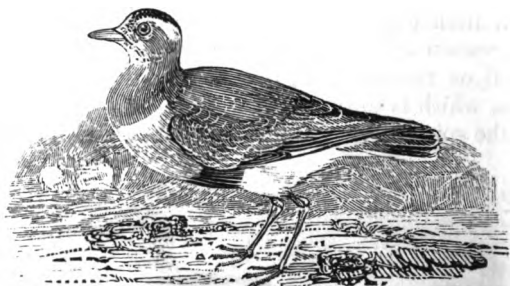


THE GRAY PLOVER

Is about the size of the lapwing: the head, back, and coverts of the wings are black, with tips of a greenish gray; the chin white; the throat spotted with brown or dusky spots; the breast, belly, and thighs white. The taste of the flesh, when the bird is caught in the proper season, is delicate and savoury; otherwise it is hard, and has a strong and rank flavour.

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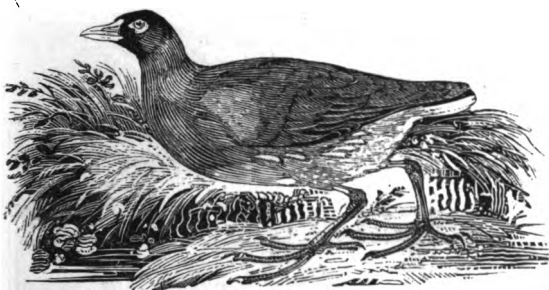
The *Green Plover* is about the size of the former. The colour of the whole upper side is black, thick set with yellowish green spots; the breast brown, with spots as on the back; the belly is white. The flesh is sweet and tender, and therefore highly esteemed as a choice dish, in this and all other countries.



THE DOTTREL

Is proverbially accounted a foolish bird, and it is hardly possible to decide why, or upon what ground. Its length is about ten inches; the bill is not quite an inch long, and is black. The forehead is mottled with brown and gray; the top of the head is black; and over each eye there is an arched line of white. The back and wings are a light brown; the breast is a pale dull orange; the middle of the belly black, and the rest of the belly and the thighs are of a reddish white. The tail brown, black towards the end, and tipped with white. This bird seems to be migratory, and makes his appearance in Lincolnshire, Cambridgeshire, and Derbyshire in April, but soon leaves those counties and retires in June to places which are totally unknown. In April, and sometimes in September,

they are seen in Wiltshire and Berkshire. They are generally caught, like other birds, by night; when, dazzled by the light of a torch, they are at a loss to know where to fly for safety, the whole place being in darkness, except the very spot which they should avoid. Many and most ridiculous stories have been propagated about the gestures of this bird, endeavouring to imitate the actions of the fowler, and thereby falling into the snare laid for him; but they ought to be entirely exploded.

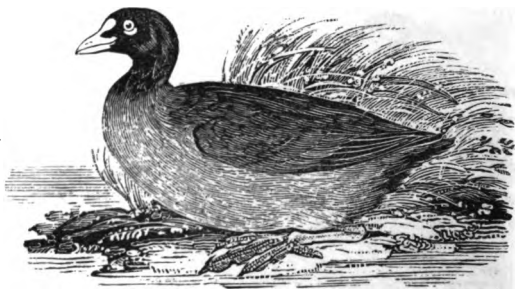


THE WATER-HEN

Is larger than the plover, and is also called the *Moor-Hen*. The breast is of a lead colour, and the belly inclining to gray or ash colour; the back all over blackish. As she swims or walks, she often flirts up her tail. They feed upon watery grass and roots, and upon the small insects which adhere to them; they grow fat, and their flesh is esteemed for its taste next to that of the teal; yet it is seldom that you can deprive it entirely of its fishy taste. They build their nests upon low trees and shrubs by the water side, breeding twice or thrice in the course of a summer;

the eggs are white with a tincture of green, dashed with brown spots. This race is considered by naturalists as the tribe which unites the order of swimmers with that of the waders; for although they have long legs and necks like the latter, yet by being furnished with a slight membrane between their toes, they are enabled to swim like the former.

There are very few countries in the world where these birds are not to be found. They generally prefer the cold mountainous regions in summer, and lower and warmer situations during winter.



THE COOT

THIS bird has so many traits in its character, and so many features in its general appearance, like the rails and water-hens, that to place it after them seems a natural and easy gradation; it is considered, however, by Linnæus, as a genus distinct from these birds, and from the waders in general, on account of its being fin-footed, and its constant attachment to the waters, which, indeed, it seldom quits. The manner in which they build their nest is very ingenious. They form it of interwoven aquatic weeds, and place it among the rushes, in such a way that it may occasionally rise with, but not be washed away by, the stream; and if

ever this accident happens, steady on her nest, the hen does not desert her brood, but follows with them the destiny of the floating cradle. This bird, in the figure and shape of his body, resembles the water-hen, and weighs about twenty-four ounces. The feathers about the head and neck are low, soft, and thick. The colour about the whole of the body is black, but of a deeper hue about the head. The cere rises upon the forehead in a peculiar manner, and appears as if Providence had contrived this sort of helmet as a means of defence. It changes its white colour to a pale red or pink in the breeding season. They are very shy, and seldom venture abroad before dusk.



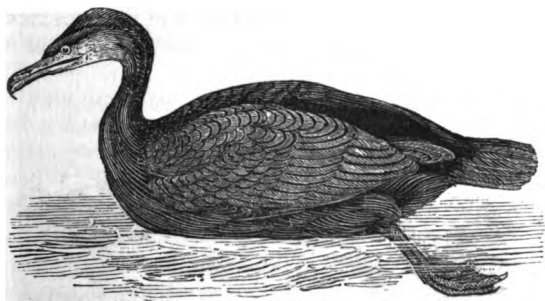
THE PELECAN

Is in size nearly equal to a swan; the colour of the body is white, inclining to a pink hue; the beak is straight and long, with a sharp hook at the end; the gullet, or skin of the lower mandible, is so capable of

distension, that it may be dilated to contain fish to a great weight, and some say fifteen quarts of water. This pouch Providence has allowed to the bird, that he may bring to his aerie sufficient food for several days, and save himself the trouble of travelling through the air, and watching and diving so often for his food. The legs are black, and the four toes palmated. It is a very indolent, inactive, and inelegant bird, often sitting whole days and nights on rocks or branches of trees, motionless and in a melancholy posture, till the resistless stimulus of hunger spurs him away, and forces him to distant seas in search of his nourishment; when thus incited to exertion, they fly from the spot, and raising themselves thirty or forty feet above the surface of the sea, turn their head with one eye downward, and continue to fly in that position till they see a fish sufficiently near the surface. They then dart down with astonishing swiftness, seize it with unerring certainty, and store it in their pouch. Having done this, they rise again, and continue the same actions till they have procured a competent stock. Whence it was that the ancients attributed to this stupid bird the admirable qualities and parental affections for which it was celebrated amongst them, is inconceivable; unless, struck with its extraordinary figure, they were desirous of supplying it with propensities equally extraordinary. For, in truth, the Pelecan is one of the most heavy, sluggish, and voracious of all the feathered tribes; and is but ill fitted to take those vast flights, or to make those cautious provisions, which have been mentioned. It is, however, by no means destitute of natural affection, either towards its young ones, or towards others of its own species. Clavigero, in his History of Mexico, says, that sometimes the Americans, in order to procure, without trouble, a supply of fish, cruelly break the wing of a live Pelecan, and after tying the bird to a tree, conceal themselves near

the place. The screams of the miserable bird attract other Pelecans to the place, which, he assures us, eject a portion of the provisions from their pouches, for their imprisoned companion. As soon as the men observe this, they rush to the spot, and after leaving a small quantity for the bird, carry off the remainder.

In America, Pelecans are often rendered domestic, and are so trained, that at command they go in the morning and return before night with their pouches distended with prey, part of which they are made to disgorge, while the rest is left to them for their trouble. This bird is said to live sometimes a hundred years.



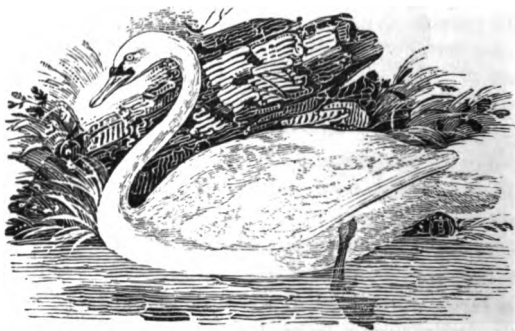
THE CORMORANT

Is a large water bird of the order of anseres, and of the pelecans genus, endued with a very voracious appetite, and consequently of a very rapacious disposition. He lives upon all sorts of fish; the fresh water, and the briny waves of the sea, both pay a large contribution to his craving stomach. The bill is about five inches in length, and of a dusky colour; the predominant tints of the body are black and dark green. Their smell, when alive, is excessively rank and disagree-

able; and their flesh is so disgusting that even the Greenlanders, among whom they are very common, will scarcely eat them. They were formerly tamed in England for the purpose of catching fish, as the falcons and hawks were for chasing the fleet inhabitants of the air. We are told that the custom is still in full practice in China. This bird, although of the aquatic kind, is often seen, like the pelecan, perched upon trees. Milton tells us that Satan

—————on the tree of life,
The middle tree, and highest there that grew,
Sat like a Cormorant.

In the year 1793, one of them was observed sitting on the vane of St. Martin's steeple, Ludgate Hill, London, and was shot from thence in the presence of a great number of people.



THE SWAN.

THERE are two distinct species of this elegantly formed and majestic bird, the wild and the mute, or tame; both bearing the general characters of the class, which they may be referred to, yet not exactly tallying with each other. The beak of the wild Swan is surmounted

with a yellow skin, which runs up to the eye. In the tame one this appendage (the use of which has not been yet sufficiently explored) is jet black, as are the feet in both species. The tame Swan is the largest of all web-footed waterfowl, some of them weighing about twenty pounds: the whole body is covered with a beautiful lily-white plumage; the young ones are gray; under the feathers is a thick but soft down, which is of very great use, and often employed as an ornament. The elegance of form which this bird displays, when with his arched neck and half-displayed wings, he sails along the crystal surface of a tranquil stream, which reflects, as he passes, the snowy beauty of his dress, is worthy of admiration. Thomson describes him in the following beautiful manner:

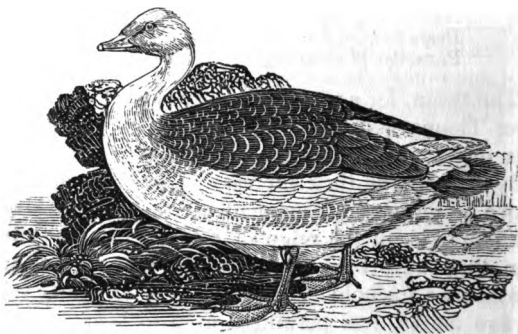
——— the stately sailing Swan
Gives out his snowy plumage to the gale,
And arching proud his neck, with oary feet,
Bears forward fierce, and guards his osier isle,
Protective of his young.

The Swan, for ages past, has been protected on the river Thames as royal property; and it continues at this day to be accounted felony to steal their eggs. "By this means their increase is secured, and they prove a delightful ornament to that noble river." Latham says, in the reign of Edward IV. the estimation they were held in was such, that no one who possessed a freehold of less than the clear yearly value of five marks, was permitted even to keep any. In those times, hardly a piece of water was left unoccupied by these birds, as well on account of the gratification they gave to the eye of their lordly owners, as that which they also afforded when they graced the sumptuous board at the splendid feasts of that period: but the fashion of those days is passed away, and Swans are not nearly so common now as they were formerly, being by most people accounted a coarse

kind of food, and consequently held in little estimation: but the Cygnets (so the young Swans are called) are still fattened for the table, and are sold very high, commonly for a guinea each, and sometimes more; hence it may be presumed they are better food than is generally imagined.

From the whiteness of this bird, the expression of a "Black Swan" was used in ancient times as equivalent to a nonentity; but a species nearly all black has been discovered of late years in New Holland. This bird is larger than the white Swan. Its bill is a rich scarlet. The whole plumage (except the primaries and secondaries, which are white) is of the most intense black.

Swans are very long lived, sometimes attaining the great age of a century and a half.



THE GOOSE

Is very different in outward appearance from the last named bird. Stupidity in her looks, uncouthness in her walk, heaviness in her flight, are the principal characteristics of the Goose. But why should we dwell upon these defects? they are not such in the

great scale of the creation. Her flesh feeds many, and is not disdained even by the great; her feathers keep us warm; and the very pen I hold in my hand was plucked from her wing.

These birds are kept in vast quantities in the fens of Lincolnshire; several persons there having as many as a thousand breeders. They breed in general only once a year, but if well kept they sometimes hatch twice in a season. During their sitting, the birds have spaces allotted to each, in rows of wicker pens placed one above another; and the Gozzard, or Goose-herd, who has the care of them, drives the whole flock to water twice a day, and, bringing them back to their habitations, places every bird (without missing one) in its own nest. It is scarcely credible what numbers of Geese are driven from the distant counties to London for sale, frequently two or three thousand in a drove; and, in the year 1783, one drove passed through Chelmsford, in its way from Suffolk to London, that contained more than nine thousand. However simple in appearance, or awkward in gesture, the Goose may be, it is not without many marks of sentiment and understanding. The courage with which it protects its offspring and defends itself against ravenous birds, and certain instances of attachment, and even of gratitude, which have been observed in it, render our general contempt of the Goose ill founded.

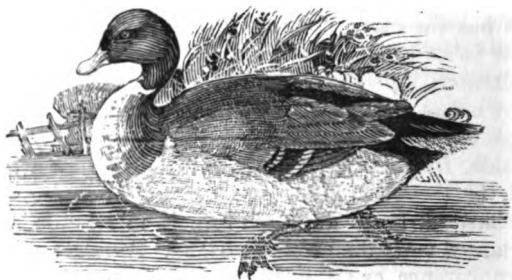
The Goose was in great veneration among the Romans, as having by her watchfulness saved the Capitol from the attack of the Gauls. Virgil says, in the seventh book of the *Æneid*,

The silver Goose before the shining gate
There flew, and by her cackle saved the state. DRYDEN.

The colour of this useful bird is generally white; yet we often find them of a mixture of white, gray, black, and sometimes yellow. The feet, which are

palmed, are orange-coloured, and the beak is serrated. A longer description of a bird so well known would be an encroachment upon the reader's time.

The *Wild Goose* is of course the original of the tame one, and differs much in colour from her, the general tint of the feathers being a cinereous black. They fly by night in large flocks, to distant countries; and their clang is heard from the regions of the clouds, although the birds are out of sight.

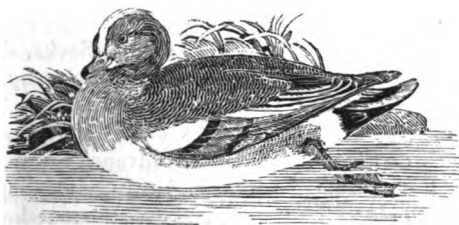


THE DUCK

Is also divided into wild and tame, the latter being but the same species altered by domestication; the difference between both is very trifling, save that the colour of the Mallard, or male wild Duck, is constantly the same in all the individuals, whereas the Drakes, or tame ones, are varied in their plumage. The females do not share with the males the same beauty of plumage: the admirable scarf of glossy green and blue, which surrounds the neck of the Drakes and Mallards, is an exclusive prerogative of the male sex. There is also a curious and invariable peculiarity belonging to the males, which consists of a few curled feathers rising upon the rump. The wild Ducks are caught by

decoys in the fen countries, and in such prodigious numbers, that in only ten decoys in the neighbourhood of Wainfleet, as many as thirty-one thousand two hundred have been caught in one season. They do not always build their nests close to the water, but often at a considerable distance from it; in which case the female will take the young ones in her beak, or between her legs, to the water. They have sometimes been known to lay their eggs in a high tree, in a deserted magpie or crow's nest; and an instance has been recorded of one being found at Etchingham, in Sussex, sitting upon nine eggs in an oak, at the height of twenty-five feet from the ground: the eggs were supported by some small twigs laid cross ways.

The tame Ducks, reared about mills and rivers, or wherever there is a sufficient quantity of water for them to indulge their sports and searches for food, become a branch of trade, which proves very profitable to their owners.



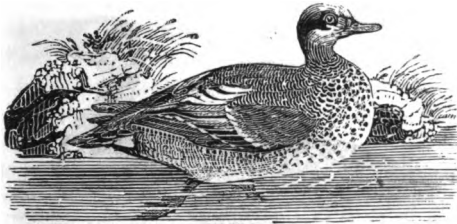
THE WIGEON

WEIGHS about twenty-two ounces, and feeds upon grass and roots growing at the bottom of lakes, rivers, and ponds. The plumage of this bird is much variegated, and his flesh esteemed a great delicacy, though not so highly praised as that of the teal. The bill of

the Wigeon is black; the head and upper part of the neck of a bright bay; the back and sides under the wings waved with black and white; the breast purple, and the belly white; the legs are dusky. The young of both sexes are gray, and continue in this plain garb till the month of February; after which a change takes place, and the plumage of the male begins to assume its rich colourings, in which, it is said, he continues till the end of July; and then again the feathers become dark and gray, so that he is hardly to be distinguished from the female. When we consider that in the season of love the plumage of several birds assumes a greater lustre, we are inclined to conclude that this elegance and gaudiness of colouring, for which nature seems to have exhausted the finest tints of her pallet, are not merely destined, as we proudly think, to amuse the eye of man, but answer some more important purpose. This general observation applies itself to several other birds, who are decked by the hands of Providence in a particular manner, at the time when the secret impulse of one of the first laws of nature calls them to the duty of multiplying their species.

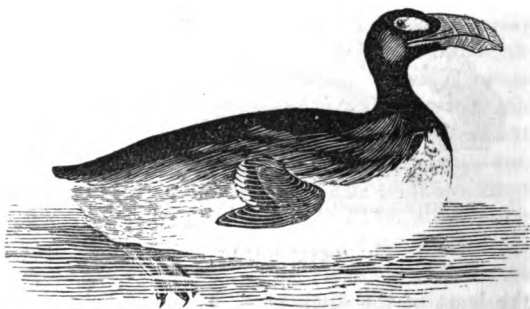
The Wigeons commonly fly in small flocks, during the night, and may be known from others by their whistling note while they are on the wing. These birds quit the desert morasses of the north on the approach of winter, and as they advance towards the end of their destined southern journey, they spread themselves along the shores, and over the marshes and lakes, in various parts of the continent, as well as those of the British isles; and it is said that some of the flocks advance as far south as Egypt.

The Wigeon is easily domesticated in places where there is plenty of water, and is much admired for its beauty, sprightly look, and busy, frolicsome manners.



THE TEAL

Is the least of the duck kind, weighing only twelve ounces. The breast and belly are of a dirty white, inclining to a gray tint. The back and sides under the wings are curiously varied with lines of white and black; the wings are all over brown, and the tail of the same colour. This bird is common in England during the winter months, and it is still uncertain whether it does not breed here as it does in France. Dr. Heysham says it is known to breed in the mosses about Carlisle. The female makes her nest of reeds interwoven with grass; and, as it is reported, places it among the rushes, in order that it may rise and fall according to the accidental height of the water. Their eggs are of the size of those of a pigeon, six or seven in number, and of a dull white colour, marked with small brownish spots; but it appears that they sometimes lay ten or twelve eggs, for Buffon remarks that that number of young are seen in clusters on the pools, feeding on cresses, chervil, and some other weeds; as well as upon seeds and small animated beings that swarm in the water. The flesh of the Teal is a great delicacy in the winter season, and has less of the fishy flavour than any of the wild duck kind. It is known to breed and remain throughout the year in various temperate climates of the world, and is met with as far northward as Iceland in the summer.



THE AUK, OR NORTHERN PENGUIN,

Is reckoned, by true observers of the wonderful operations of the Creator, a link between the bird and the fish; and we place here his description, in order to exhibit more explicitly and conspicuously the uninterrupted chain of beings which constitute the whole sum of created nature. These birds have very short wings, not exceeding four inches and a quarter from the tip of the longest quill feather to the first joint; with legs black, short, and placed near the vent. From the inability of these birds to fly or walk, they are seldom seen out of the water, and they never venture beyond soundings. It is a peculiarity belonging to this class of birds, that the female lays one egg only, which she deposits and hatches upon a ledge close to the sea mark; it is about six inches in length, white streaked with purple lines. When on shore, this bird, and all of the same species, stand upright on their rump and short legs, which gives them a very awkward appearance.

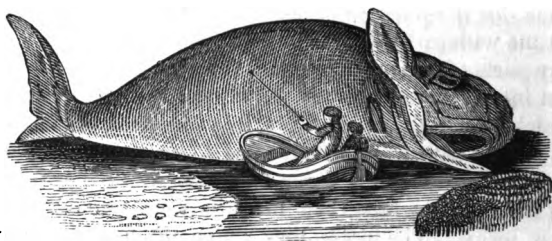
Mr. Pennant has asserted that the affection of these birds for their young is so great, that, when laid hold of by the wings, they will give themselves the most

cruel bites on any part of their body that they can reach, as if actuated by despair; and that, when released, instead of flying away, they will often hurry again into their burrows. But Bingley says, "When I was in Wales, in the summer of 1801, I took several Puffin Auks out of the holes that had young ones in them, for the purpose of ascertaining this fact. They bit me with great violence, but none of them seized on any parts of their own body: a few, on being released, ran into the burrows, but not always into those from which I had taken them. If it was more easy for them to escape into a hole than raise themselves into the air, they did so; but if not, they ran down the slope of the hill in which their burrows were formed, and flew away. The noise they make when with their young is a singular kind of humming, much resembling that produced by the large wheels used for the spinning of worsted. On being seized, they emitted this noise with greater violence; and from its being interrupted by their struggling to escape, it sounded not much unlike the efforts of a dumb man to speak. The young ones are entirely covered with a long blackish down, and, in shape, are altogether so different from the parent birds, that no one would at first sight suppose them of the same species. Their bill also is long, pointed, and black, with scarcely any marks of furrows."



BOOK III.

FISHES.



THE WHALE.

Nature's strange work, vast Whales of different form,
Toss up the troubled flood, and are themselves a storm ;
Uncouth the sight, when they, in dreadful play,
Discharge their nostrils, and refund a sea ;
Or angry lash the foam with hideous sound,
And scatter all the watery dust around.
Fearless, the fierce destructive monsters roll,
Ingulf the fish, and drive the flying shoal.
In deepest seas these living isles appear,
And deepest seas can scarce their pressure bear ;
Their bulk would more than fill the shelvy strait,
And fathom'd depths would yield beneath their weight.

THE Whale is by far the largest of the known inhabitants of the sea ; he is often mentioned in the holy writ, and described under the name of Leviathan. This class of animals have generally breathing apertures on the head, pectoral fins, a horizontal tail, and no kind of claws. The Greenland Whale, which inhabits the arctic circle, is sometimes ninety feet in length. Although it is impossible to ascertain the length of time which a creature may be allowed by Providence

to remain in existence, yet it is fair to suppose that the life of the Whale must exceed that of any other animal, when no accidents shorten the number of his days. The head of this fish generally constitutes a third part of the whole bulk. The mouth is exceedingly large, stretching almost as far back as the eyes. The under lip is much larger than the upper; the tongue, which is of the size and form nearly of a large featherbed, is of a fat substance, yielding commonly five or six barrels of blubber. They have no teeth in either jaw; but, in place of these, the upper jaw is furnished with the horny laminæ called whalebone. The gullet scarcely exceeds four inches in width. Out of two orifices, placed in the middle of the head, this creature spouts the water to a great distance, chiefly when wounded. The eyes are comparatively small, and placed towards the back of the head. The tail is broad and semicircular; the colour of the back is blackish, and the belly white. The skin is about an inch thick; and the outer, or scarf skin, about the thickness of parchment, and very smooth. Under the skin lies the blubber, which is from eight to twelve inches thick: this, when the animal is in health, is of a beautiful yellow colour.

As when enclosing harponeers assail,
In hyperborean seas, the slumbering Whale;
Soon as the javelins pierce the scaly side,
He groans, he darts impetuous down the tide;
And, rack'd all o'er with lacerating pain,
He flies remote beneath the flood in vain.

FALCONER.

Whales are taken in large numbers about Iceland, Greenland, and other northern countries, by the English, Hollanders, &c. The South Sea Company, for several years, used to send annually on this expedition about twenty sail of ships, every ship being above three hundred tons burden, and each carrying forty-

five men: this fleet usually sailed about the end of March, but seldom began to fish till the month of May. When they begin their fishery, the ship is fastened or moored with nose-hooks to the ice. Two boats, each manned with six men (which is the complement of every boat in the fleet), are ordered by the commodore (who is an officer, and also the head of every ship's company, and appointed on purpose to manage the fishery) to look out for the coming of the fish, for two hours, and then are relieved by two more, and so by turns: the two boats lie at some small distance from the ship, each separated from the other, fastened to the ice with their boat-hooks, ready to let go in an instant at the first sight of the Whale. Here the dexterity of the Whale hunters is to be admired; for, as soon as the fish shows himself, every man is at his oar, and they rush on the monster with a prodigious swiftness; at the same time taking care to come abaft or behind his head, that he may not see the boat, which sometimes so scares him, that he plunges down again before they have time to strike him. But the greatest care is to be taken of the tail, with which it many times does very great damage, both to the boats and mariners; the harponeer, who is placed at the head or bow of the boat, seeing the back of the Whale, and making the onset, thrusts the harping iron with all his might into his body, by the help of a staff fixed in it for this purpose, and leaves it in, a line being fastened to it of about two inches in circumference, and one hundred and thirty-six fathoms long. Every boat is furnished with seven of these lines, which being let run, from the motion of it they observe the course of the fish.

As soon as the Whale is struck, the third man in the boat holds up his oar, with something on the top, as a signal to the ship; at the sight of which the man who is appointed to watch gives the alarm to those

that are asleep, who instantly let fall their other four boats, which hang on the tackles, two at each side, ready to let go at a minute's warning, all furnished alike with six men each, harping irons, lances, lines, &c. Two or three of these boats row to the place where the fish may be expected to come up again; the other to assist the boat that first struck the Whale, with line; for the fish will sometimes run out two or three boats' lines, all fastened to each other; for when the lines of the first boat are almost run out, they throw the end to the second, to be fastened to theirs, and then follow the other boats in pursuit of the Whale; and so likewise does the second boat, when their lines are run out.

A Whale, when he is first struck, will run out above a hundred fathoms of line, before the harpioneer is able to take a turn round the boat's stem; and with such swiftness, that a man stands ready to quench it, if it should take fire, which it frequently does. There was a boat lately to be seen in the South Sea dock at Deptford, the head of which was sawed off by the swiftness of the line running out. Sometimes the Whale is killed on the spot, without sinking down at all. The harping iron would but little avail to the destruction of this animal; but part of the rowers, either at the first onset, or when, in order to fetch his breath, he discovers himself to view, throwing aside their oars, and taking up their very sharp lances, thrust them into his body, till they see him spurt the blood through the blower; the sight of which is a joyful sign of the creature's being mortally wounded. The fishermen, upon the killing of a Whale, are each entitled to some small reward. After the Whale is killed, they cut all the lines that are fastened to it, and the tail off; then it instantly turns on its back; so they tow it to the ship, where they fasten ropes

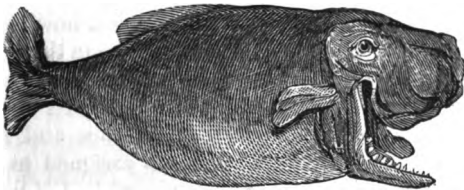
to keep it from sinking; and when it is cold, begin to cut it up.

The body of a Whale is frequently found to be eighteen or twenty inches thick of fat; and yields fifty or sixty puncheons of oil, each puncheon containing seventy-four gallons; and about twelve hundred pieces of whalebone, most of which are about fifteen feet long and twelve inches broad; the whole produce of a Whale being worth one thousand pounds, sometimes more or less, according to the goodness of the fish. Whilst the men are at work on the back of the fish, they have spurs on their boots, with two prongs, which come down on each side of their feet, lest they should slip, the back of the Whale being very slippery. These ships have orders to quit those seas by the 24th of June, for then the fish begin to be very mischievous.

When the Whale feeds, it swims with considerable velocity below the surface of the sea, with its jaws widely extended. A stream of water consequently enters its capacious mouth, and, along with it, immense quantities of cuttle-fish, sea-blubber, shrimps, and other small marine animals. The water escapes at the sides; but the food is entangled, and, as it were, sifted by the whalebone within the mouth.

While swimming, it is not easy to distinguish the male from the female, unless from this, that the latter is bigger than the former. The female has teats, and suckles her young after the manner of land animals. The Triton, one of our South Sea Company's ships, killed a female Whale; and whilst they were cutting her up alongside, a young one swam about the ship, and would not forsake the dam, till at length the commodore ordered the boat to go out and kill it, which they did, and it produced four puncheons of oil, &c. There is a small fish called Lodd by the

whale-catchers, of which, if the Whales devour any large numbers, they become as it were drunk; and, transported with rage and fury, exercise outrages against whatever comes in their way: but they are naturally inoffensive; and yet they have many foes, the most dreaded of which is the sword-fish. This animal is sufficiently active to evade the blows which its tremendous adversary makes with his tail, his only weapon; one of which, if it took place, must effectually destroy it. The sea, for a considerable space around, may be seen dyed with the blood, that issues in copious streams from the wounds made in the Whale's body by the dreadful beak of his adversary. The noise made by each blow of the tail is said to be louder than that of a cannon. The fishermen, in calm weather, frequently lie on their oars as spectators of the combat, till they perceive the Whale at his last gasp; they then row towards him, and, the enemy retiring at their approach, they enjoy the fruits of his victory.



THE SPERMACETI WHALE

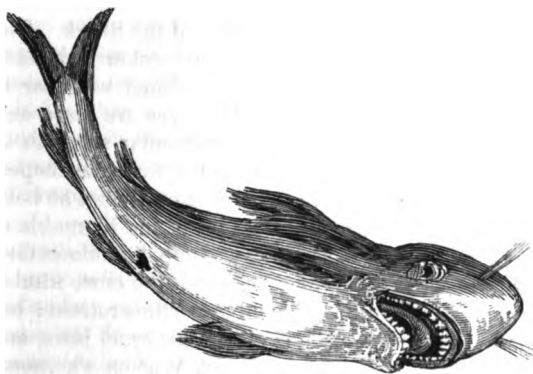
BELONGS to that kind which has teeth in the lower jaw only. The drug called spermaceti is extracted from its large head.

According to the relations of navigators, the Whale

produces one or two cubs at a time, which she suckles with her teats, for the whole space of one year. At the moment of their birth the young are about ten feet in length, and follow the dam as calves do the cow; but when she is in fear, and flees from danger, she grasps her cubs within her fins, and plunges with astonishing velocity to the most profound regions of the deep, where, secure from the attack of man, she enjoys the pleasures of maternal love; no animals appearing more fond of their offspring than the Whales.

The oil produced from the Spermaceti Whale is not in such large quantity as that produced from some of the other species; but, in quality, it is far preferable, since it yields a bright flame, without at the same time exhaling any nauseous smell. The substance known by the name of ambergris is produced from the body of this animal. It is generally found in the stomach, but sometimes in the intestines; and, in a commercial point of view, is a highly valuable production.

When we reflect, that the same Power, whose will has formed the immense bulk of this marine monster, has also given animation, senses, and passions to the smallest of the microscopic animalcules, how lowered must be the pride of man, who, standing in the middle, and nearly at equal distance from both, is yet unable to comprehend the mechanism which puts them in motion, and much less that intelligence and power which has given them life, and has assigned to them their respective stations in the universe! Let us then exclaim, with astonishment and gratitude, with the psalmist: "O Lord, how inscrutable are thy ways, how magnificent thy works!"



THE SHARK.

THERE are several species of this monster, for his boldness and voracity may allow us to style him so. The most audacious of this destructive tribe of the sea-fish is called the White Shark. He represents the vulture, as the whale does the eagle, among the inhabitants of the deep. Like the whale, he is viviparous, but differs from that marine wonder in bulk and in habits. The whale's chief food consists of crabs and medusæ; the Shark lives entirely upon fish or flesh: and it is reported, that when he has once tasted of the flesh of a human being, nothing can make him desist from his pursuit after the vessels, which he suspects to contain the delicate food he seeks after. The White Shark is sometimes found weighing near four thousand pounds. The throat is often large enough to swallow a man; and a human body has sometimes been found entire in the stomach of this tremendous animal. He is furnished with six rows of sharp triangular teeth,

amounting in the whole to one hundred and forty-four, serrated on their edges, and capable of being erected or depressed at pleasure, owing to a curious muscular mechanism in the palate and jaws of the Shark. The whole body and fins are of a light ash colour; the skin rough, and employed to smooth cabinet work, or to cover small boxes or cases. His eyes are large and staring, and he possesses great muscular strength in his tail and fins. Whenever he spies, from the deepest recesses of the sea, a man swimming or diving, he bolts from the place, darts up to his prey, and if unable to take in the whole or snatch away a limb, he follows for a long time the boat or vessel in which the more nimble swimmer has found a safe and opportune retreat: but seldom does he let any one escape his cruel jaws, and get off entire. The late Sir Brook Watson was, some years ago, swimming at a little distance from a ship, when he saw a Shark making towards him. Struck with terror at its approach, he cried out for assistance. A rope was instantly thrown; and even while the men were in the act of drawing him up the ship's side, the monster darted after him, and at a single snap, tore off his leg.

Some commentators on the Book of Jonah are of opinion that it was this fish, and not the whale, that swallowed the prophet.

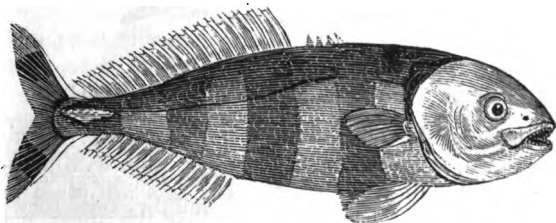
We are told, that in the reign of Queen Anne, some of the men of an English merchant-ship which had arrived at Barbadoes, were one day bathing in the sea, when a large Shark appeared, and sprung forward directly at them. A person from the ship called out to warn them of their danger; on which they all immediately swam to the vessel, and arrived in perfect safety, except one poor man, who was cut in two by the Shark, almost within reach of the oars. A comrade and intimate friend of the unfortunate victim, when he observed the severed trunk of his companion, was

seized with a degree of horror that words cannot describe. The insatiable Shark was seen traversing the bloody surface in search of the remainder of his prey, when the brave youth plunged into the water, determining either to make the Shark disgorge, or to be buried himself in the same grave. He held in his hand a long and sharp-pointed knife, and the rapacious animal pushed furiously towards him: he had turned on his side, and had opened his enormous jaws, in order to seize him, when the youth, diving dexterously under, seized him with his left hand, somewhere before the upper fins, and stabbed him several times in the belly. The Shark, enraged with pain, and streaming with blood, plunged in all directions in order to disengage himself from his enemy. The crews of the surrounding vessels saw that the combat was decided; but they were ignorant which was slain, until the Shark, weakened by loss of blood, made towards the shore, and along with him his conqueror; who, flushed with victory, pushed his foe with redoubled ardour, and, by the aid of an ebbing tide, dragged him on shore. Here he ripped up the bowels of the animal, obtained the severed remainder of his friend's body, and buried it with the trunk in the same grave. This story, however incredible it may appear, is related in the History of Barbadoes, on the most satisfactory authority.

Had nature allowed this fish to seize on his prey with as much facility as many others, the Shark tribe would have soon depopulated the ocean, and reigned alone in the vast regions of the sea, till hunger would have forced them to attack and ultimately destroy each other; but holding the impartial scale over the whole creation, she ordered that the upper jaw of this devouring marine animal should be, by its cumbersome prominence, an impediment to his seizing easily his offered

food ; and it is generally remarked, that, when on the point of catching hold of any thing, the Shark is obliged to twist himself on one side, which troublesome evolution often gives the object of his pursuit time to escape. The flesh of this fish is of a disagreeable taste, and cannot be eaten with any kind of relish, except the part near the tail.

The *Dog-fish* is so excessively voracious, that they are altogether fearless of mankind. They follow vessels with great eagerness, seizing with avidity every thing eatable that is thrown overboard ; and they have sometimes been known to throw themselves on fishermen, and on persons bathing in the sea. As, however, they are smaller and more weak than most other Sharks, they do not attack their more exposed enemies by open force. In combating them, it is necessary to have recourse to stratagem. They, consequently, for this purpose, conceal themselves in the mud, and lie in ambush, like the ray species, until they have an opportunity of acting offensively with success. On the coasts of Scarborough, where the haddocks, cod, and Dog-fish are in great abundance, the fishermen universally believe that the Dog-fish make a line or semicircle to encompass a shoal of haddocks and cod, confining them within certain limits near the shore, and eating them as occasion requires : they are therefore very destructive to this fishery. The flesh of the Dog-fish is hard and disagreeable ; their skin, when dried, is the well known *shagreen* ; from the liver a considerable quantity of oil may be extracted.



THE PILOT-FISH.

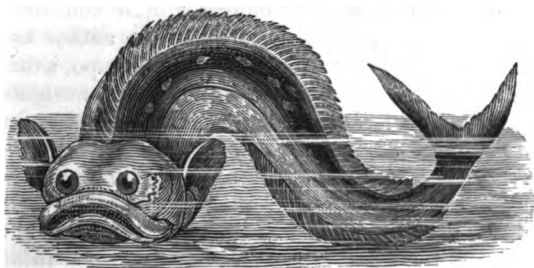
THE body of this fish is long, the head compressed, rounding off in front, without scales as far as the operculum. The mouth is small, the jaws of equal length, and furnished with small teeth; the palate has a curved row of similar teeth in front, and the tongue has teeth all along. The colour varies in several species. What is most remarkable in this fish is, that he is a provider or guide for the shark, when in search of food. This opinion, long doubted, has been confirmed by Mr. Geoffroy, professor in the Museum of Natural History at Paris, who speaks as an eyewitness, and describes how the Pilot-fishes (for two of them accompanied the shark which he saw near Malta, on the 26th of May, 1798) led the fish to a piece of bacon, which a seaman had let down with a rope and hook; and how the shark obeyed their motions, till he arrived in sight of his prey. What can induce this small fish to associate with, and become subservient to the shark?



THE REMORA, OR SUCKING-FISH,

RESEMBLES the herring; his head is thick, naked, depressed, and marked on the upper side with transverse rough lines, or striæ. The fins are seven in number; the under jaw is longer than the upper, and both furnished with teeth. He is provided by nature with a strong adhesive power, and, by means of the striæ on his head, attaches himself to any animal or body whatever. A small fish with seven acting fins, armed like a galley with oars, we might suppose to have a great power of motion in the water, but for some reason unknown to us, Providence has contrived for him an easier way of travelling, by enabling him to fix himself to the hull of a ship, and even to the body of a larger animal than himself, as the whale, the shark, and others. The ancients absurdly believed that, small as he is, this fish had the power of arresting the progress of a ship in its fastest sailing, by adhering to the bottom. The Remora has, in all ages, ranked high in the writings of the poets, in the comparisons of orators, the narrations of travellers, and the descriptions of naturalists.

The Sucking-fish beneath, with secret chains,
Clung to the keel, the swiftest ship detains.
The seamen run confused, no labour spared,
Let fly the sheets, and hoist the topmast yard.
The master bids them give her all the sails,
To court the winds, and catch the coming gales.
But, though the canvass bellies with the blast,
And boisterous winds bend down the cracking mast,
The bark stands firmly rooted in the sea,
And will, unmoved, nor winds nor waves obey:
Still, as when calms have flatted all the plain,
And infant waves scarce wrinkle on the main.



THE DOLPHIN

Is a large fish, so like the porpoise, that he has been often confounded with it, although they differ much from each other. They are, however, much larger, sometimes measuring from twenty to twenty-five feet in length. The body is roundish, growing gradually less towards the tail; the nose is long and pointed, the skin smooth, the back black or dusky blue, becoming white towards the belly; he is entirely destitute of gills, or any similar aperture, but respire and also spouts water through a pipe of semicircular form, placed on the upper part of the head. The lower end of the pipe opens in the mouth, and is capable of being opened and shut at pleasure. We find eight small teeth in each jaw; a dorsal and two pectoral fins, and the tail in the shape of a half moon. Their snouts are most useful to them when in search of eels and other fishes, which harbour in the mud at the bottom of the sea.

Several curious stories have been related of this animal, most of which are fabulous. The anecdote of Arion, the musician, when thrown overboard by pirates, having been indebted for his life to one of

these animals, is well known, and acquired great credit among ancient poets. The following interesting anecdote, related by Pliny the Younger, must be considered equally fabulous, though related by the author as a fact. "There is in Africa a town called Hippo, situate not far from the sea-coast; it stands upon a navigable lake, whence a river runs into the sea, and ebbs and flows with the tide. Persons of all ages divert themselves there with fishing, sailing, or swimming, especially boys, whom love of play and idleness bring thither. The contest among them is who shall have the glory of swimming farthest. It happened in one of these trials of skill, that a certain boy, more bold than the rest, launched out towards the opposite shore; he was met by a Dolphin, who sometimes swam before him, and sometimes behind him, then played round him, and at last took him upon his back, then set him down, and afterward took him up again: and thus he carried the frightened boy out into the deepest part, when immediately he turned back again to the shore, and landed him among his companions. The fame of this remarkable event spread through the town, and crowds of people flocked round the boy, to ask him questions and hear his answers. The next day the shore was lined with multitudes of spectators, all attentively contemplating the ocean: meanwhile the boys swam as usual, and among the rest the youth I am speaking of went into the lake, but with more caution than before. The Dolphin again appeared, and came to the boy, who, together with his companions, swam away with great precipitation. The Dolphin, as it were to invite and recall them, leaped and dived up and down, darting about in a thousand different convolutions; this he practised for several days together, till the people began to be ashamed of their timidity. They ventured therefore to advance nearer, playing with him, and calling him to them;

while he, in return, suffered himself to be touched and stroked. Use rendered them more courageous; the boy in particular, who first had experienced the safety, swam by the side of him, and leaping upon his back, was carried about in that manner: thus they gradually became acquainted and delighted with each other. There seemed now, indeed, to be no fear on either side; the confidence of the one, and tameness of the other, mutually increasing; the rest of the boys in the mean while surrounding and encouraging their companion.

"It is very remarkable, that this Dolphin was followed by a second, who seemed only as a spectator or attendant on the former; for he did not at all submit to the same familiarities as the first, but only conducted him backwards and forwards, as the boys did their comrade. But what is farther surprising, and no less true, is, that this Dolphin, who thus played with the boys, would come upon the shore, dry himself on the sand, and as soon as he grew warm, roll back into the sea. Octavius Avitus, deputy governor of the province, actuated by an absurd sense of superstition, poured some precious ointment over him as he lay on the shore: the novelty and smell of which made him retire into the ocean, and it was not till after several days, that he was seen again, when he appeared dull and languid. However, he recovered his strength, and continued his usual playful tricks. All the magistrates round the country flocked thither to see the sight, the entertainment of whom, upon their arrival and during their stay, was an additional expense, which the slender finances of this little community could ill afford; besides, the quietness and retirement of the place was utterly destroyed. It was thought proper, therefore, to remove the occasion of this concourse, by privately killing the poor Dolphin."

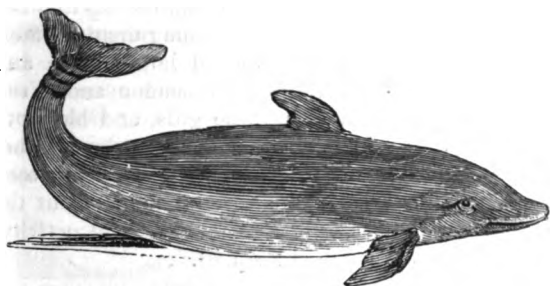
The elder Pliny mentions a similar circumstance of

a Dolphin, who used to carry a boy to school upon his back, and bring him back home, across the straits which separate Baïæ from Puzzoli: the boy died of an accidental illness, and for several days the disappointed fish made his appearance at the place where he was wont to take the boy up; but finding him not, soon pined away and died; he was placed in the same tomb with the remains of his friend the boy.

There are several other fables of this kind mentioned by ancient authors, to prove the philanthropy of the Dolphin; but those related above being the most interesting, will be sufficient for our purpose. Since the province of *Dauphiné* in France has been united to the crown, the heir apparent has been called "Dauphin," and quarters a Dolphin on his shield. Falconer, in his beautiful poem "The Shipwreck," describes the death of this fish in the following elegant manner:

—— beneath the lofty vessel's stern
A shoal of Dolphins they discern,
Beaming from burnish'd scales refulgent rays,
Till all the glowing ocean seems to blaze.
In curling wreaths they wanton on the tide;
Now bound aloft, now downward swiftly glide.
Awhile beneath the waves their tracks remain,
And burn in silver streams along the liquid plain;
Soon to the sport of death the crew repair,
Dart the long lance, or spread the baited snare.
One in redoubling mazes wheels along,
And glides, unhappy, near the triple prong.
Rodmond, unerring, o'er his head suspends
The barbed steel, and every turn attends;
Unerring aim'd, the missile weapon flew,
And, plunging, struck the fated victim through.
The upturning points his ponderous bulk sustain;
On deck he struggles with convulsive pain;
But while his heart the fatal javelin thrills,
And fleeting life escapes in sanguine rills,
What radiant changes strike the astonish'd sight,
What glowing hues of mingled shade and light!
No equal beauties gild the lucid west
With parting beams all o'er profusely dress'd;
No lovelier colours paint the vernal dawn,
When orient dews impearl the enamell'd lawn;

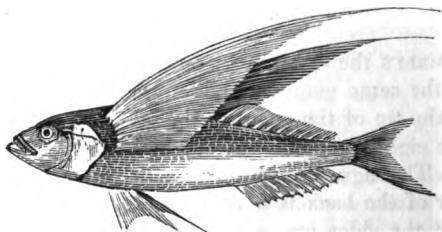
Than from his sides in bright suffusion flow,
That now with gold empyreal seem to glow ;
Now in pellucid sapphires meet the view,
And emulate the soft celestial hue ;
Now beam a flaming crimson to the eye,
And now assume the purple's deeper dye :
But here description clouds each shining ray ;
What terms of art can Nature's power display ?”



THE PORPESSE, PORPUS, OR PORPOISE,

RESEMBLES the dolphin in outward appearance, and is of the same genus. The length of the Porpoise is, from the tip of the snout to the end of the tail, from five to eight feet ; and the width about two feet and a half. The figure of the whole body is conical ; the colour of the back is deep blue, inclining to shining black ; the sides are gray, and the belly white. The tail is forked, and composed of several rays united by a membrane. This fish is covered with a rough skin, but has no scales ; and, like all those of the whale order, his blood is as warm as that of quadrupeds. The eyes are very small ; he has only three fins, one on the back, and one on each shoulder. When the flesh is cut up, it looks very much like pork ; but

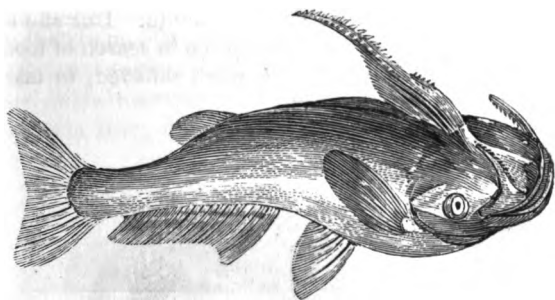
although it was once considered a sumptuous article of food, and is said to have been occasionally introduced at the tables of the old English nobility, it certainly has a disagreeable flavour. Porpoises are viviparous, live on smaller fish, and appear generally in large shoals in the mackerel and herring seasons, at which time they do very great damage to fishermen, by breaking and destroying the net to get at their prey. Their motion in the water is a kind of circular leap; they dive deep, but soon again rise up in order to breathe. They are so intent in the pursuit of their prey, that they sometimes ascend large rivers, and several have been seen between London and Westminster Bridges. They have no gills, and blow out the water with a loud noise, which in calm weather may be heard at a great distance. They are seen nearly in all seas, and are very common about the English coasts, where they sport with great activity, chiefly at the approach of a squall.



THE FLYING FISH

Is slender and long, with a large staring eye. The body is in shape, scales, and colour, like one of our mullets. The fins on each side of the back are so long and wide as to answer the purpose of wings; and,

aided by them, he flies nearly to the distance of a gunshot, before he touches the water; and when he has slightly dipped, in order to rest himself, mounts up again; a curious manœuvre, by which he often escapes the jaws of the Dolphins, which swim rapidly in pursuit of him. He is a native of the Mediterranean, and is found in many other seas in warm climates. This curious creature, as we may easily perceive, is the link between the fish and the birds, as the auk or penguin unites the inhabitants of the air with those of the sea, in the contemplative mind of the naturalist.

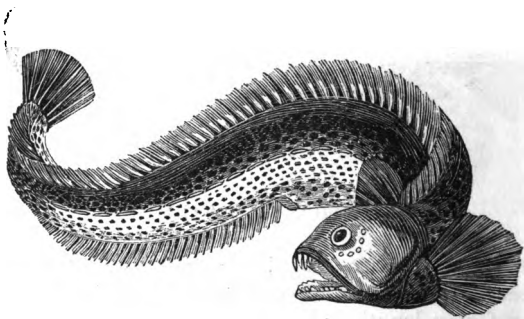


THE HORNED SILURE

GROWS to a large magnitude, weighing sometimes three hundred pounds, and measuring fifteen or sixteen feet in length and two in breadth. It has a broad, flat, thin head; and the horns, which occupy the place of eyes in other species, are armed with short crooked spines like teeth. Another remarkable peculiarity in this fish is the dorsal fin; it is close to the head, and its front ray is long, stiff, dentated like the horns, and is, with them, probably an instrument of defence. In colour it resembles the eel, and has no scales; one

only small fin on the back, and a forked tail; its flesh is esteemed next to that of the eel, and has a similar flavour. This fish is a great depredator, and makes considerable havoc among the smaller inhabitants of the rivers and lakes which he inhabits. The Danube and several other rivers of Germany, and the lakes of Switzerland and Bavaria, contain numerous tribes of the *Silure* genus.

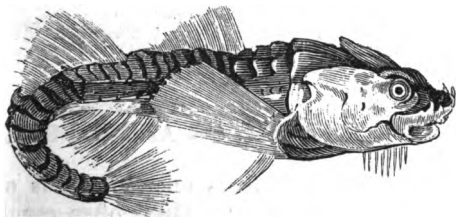
One of these fish, caught at Surinam, on examination, was observed to have its mouth filled with yellow eggs, in none of which, however, could be found a fish completely formed; hence it is concluded that the *Silure*, to defend her eggs from the voracious tribes, hatches them instinctively in her mouth. But she is supposed at times to emit them, when in search of food to appease her appetite; and when satisfied, to take them into her mouth again.



THE SEA WOLF

Is often caught at Heligoland, an island not far from the mouth of the Elbe; it is about three feet in length, and has a larger and flatter head than the shark. The back, sides, and fins are of a bluish colour; the belly is nearly white; the whole skin is smooth and slip-

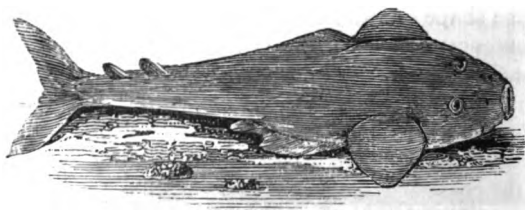
pery, without any appearance of scales. He is of a very voracious nature, and has a double row of sharp and round teeth, both in the upper and lower jaw. However, his appetite does not lead him to destroy fishes similar in shape to himself, as he is supposed to feed entirely on crustaceous animals and others, whose shells he breaks easily with his teeth. He is sometimes found in the northern seas exceeding twelve feet in length, and owes his name to his natural fierceness and voracity. The fishermen dread his bite, and endeavour as speedily as possible to strike out his fore teeth, which are so strong that they are capable of leaving an impression on an anchor. The fins nearest the head spread themselves when the animal is swimming, in the shape of two large fans, and their motion contributes considerably to accelerate his natural swiftness. The flesh is good, but not often eaten.



THE FATHER LASHER.

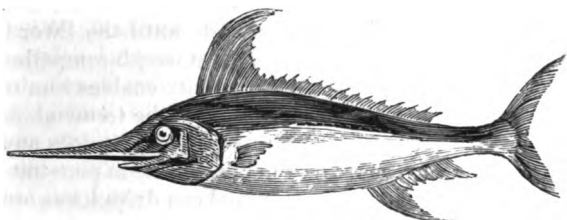
It would be a comfort for the writer upon natural history to be able to give a rational and satisfactory etymology of all names; but this is, in many circumstances, utterly impossible. The whimsical denomination of Father Lasher, given to this fish, cannot be easily accounted for, unless we take a particular notice of the quick and repeated lashings of his tail, when he is caught and thrown upon the sand. His length is

about eight or nine inches, and he is usually found under stones, on the rocky coasts of our island. In Greenland these fish are so numerous that the inhabitants depend largely upon them for their food. When made into soup, they are nutritive and wholesome. The head is large, and armed with vast spines, by which this fish combats every enemy that attacks it, swelling out its cheeks and gill-covers to an unusual size. Its colour is a dirty brown, mottled with white, and sometimes mixed with red; the fins and tail are transparent, and the belly is a shining white.



THE MONK-FISH, OR ANGEL-FISH,

Is very voracious, and feeds upon all kinds of flat fish, as soles, flounders, &c. He is often caught on the coasts of Great Britain, and of such a size as to weigh sometimes a hundred pounds. This fish seems to be of a middle nature between the rays and sharks, and is called by Pliny the Squatina; a name which seems to bring his kind near that of the skate. His head is large; the mouth has five rows of teeth, which are capable of being raised or depressed at pleasure. The back is of a pale ash colour; the belly white and smooth. The shores of Cornwall are often frequented by this fish, but his flesh does not deserve to be praised, being hard, and of a very indifferent flavour.



THE SWORD-FISH

HAS his name from his long snout resembling the blade of a sword. He sometimes weighs above one hundred pounds, and is fifteen feet in length. The body is of a conical form, black on the back, white under the belly, a large mouth, and no teeth; the tail is remarkably forked. The Sword-fish is often taken off the coast of Italy, in the Bay of Naples and about Sicily. They are struck at by the fishermen, and their flesh is reckoned as good as that of the sturgeon by the Sicilians, who seem to be particularly fond of it. Other European seas are not destitute of this curious animal.

The Sword-fish and the whale are said never to meet without coming to battle; and the former has the reputation of being always the aggressor. Sometimes two Sword-fishes join against one whale; in which case the combat is by no means equal. The whale uses his tail in his defence; he dives down into the water, head foremost, and makes such a blow with his tail, that, if it take effect, finishes the Sword-fish at a stroke: but the other, which in general is sufficiently adroit to avoid it, immediately falls upon the whale, and buries his weapon in his sides. When the whale

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discovers the Sword-fish darting upon him, he dives to the bottom, but is closely pursued by his antagonist, who compels him again to rise to the surface. The battle then begins afresh, and lasts until the Sword-fish loses sight of the whale, who is at length compelled to swim off, which his superior agility enables him to do. In piercing the whale's body with the tremendous weapon at his snout, the Sword-fish seldom does any great damage to the former, not being able to penetrate beyond the blubber. This animal can drive its sword with such force into the keels of ships, as to bury it wholly in the timber. A part of the bottom of a vessel, with the sword imbedded in it, is now to be seen in the British Museum.



THE SAW-FISH.

WHAT can be the use of this curious apparatus, with which the snout or beak of this fish is provided? It looks like an offensive piece of armour, yet we do not see what occasion the animal can have for it. However, let us admire Providence behind the veil which is spread between God and man, and let

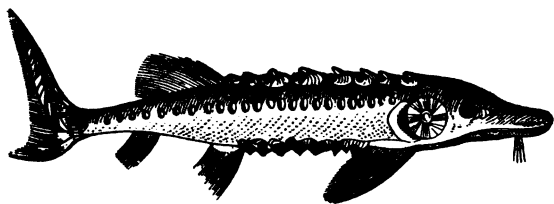
— expressive silence muse his praise.

This fish is found in the European and Atlantic seas. His body is flattened anteriorly with four or five branchial openings below on each side; two spiracles behind the eyes; no anal fin; the head prolonged

into a depressed bony beak, with strong pointed spines on each side; the teeth are crowded and flattened. The colour of his body is of a grayish brown above, and paler below. His length about fifteen feet, the beak being about one-third of the whole.

THE GRAMPUS

Is a decided and inveterate enemy to the different species of whales; great flocks of them attack the largest of these, fastening round them like so many bull-dogs, making them roar out with pain, and frequently killing and devouring them. They are usually from twenty to twenty-five feet in length; the general form and colour resemble the rest of the tribe; but the lower jaw is considerably wider than the upper, and the body, in proportion, is somewhat broader and more deep. The back fin sometimes measures six feet in length. In one of the poems of Waller, a story (founded on fact) is recorded of the parental affection of these animals. A Grampus and her cub had got into an arm of the sea, where, by the desertion of the tide, they were enclosed on every side. The men on shore saw their situation, and ran down upon them with such weapons as they could at the moment collect. The poor animals were soon wounded in several places, so that all the immediately surrounding water was stained with their blood. They made many efforts to escape; and the old one, by superior strength, forced itself over the shallow into the ocean. But though in safety herself, she would not leave her young one in the hands of assassins. She therefore again rushed in; and seemed resolved, since she could not prevent, at least to share, the fate of her offspring. The story concludes with poetical justice; for the tide coming in, conveyed them both off in safety.

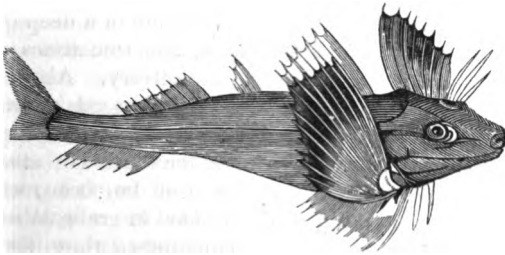


THE STURGEON

SOMETIMES grows to the length of eighteen feet, and has been found to weigh five hundred pounds. It has a long, slender, pointed nose ; small eyes ; and a small mouth, destitute of teeth, placed beneath and unsupported by the maxillæ ; so that when the animal is dead the mouth remains always open. The body is covered with five rows of large bony tubercles, and the under side is flat ; it has one dorsal fin, two pectoral, two ventral, and one anal. The upper part of the body is of a dirty olive colour, and the under part silvery. The tail is bifurcated, the upper part being much longer than the under. They subsist principally on insects and marine plants, which they find at the bottom of the water, where they mostly resort.

The Sturgeon annually ascends our rivers, in the summer, particularly those of the Eden and Esk ; but when caught, as it sometimes is, in the salmon-nets, it scarcely makes any resistance, but is drawn out of the water apparently lifeless. One of the largest Sturgeons ever caught in our rivers was taken in the Esk, about thirty years ago ; it weighed four hundred and sixty pounds. This fish is found in most of the rivers in Europe, and it is also common in those of North America.

The flesh of the Sturgeon is delicious; and it was so much valued in the time of the Emperor Severus, that it was brought to table by servants with coronets on their heads, and preceded by music. This might give rise to its being, in our country, presented by the Lord Mayor of London to the King. *Caviar* is made from its spawn; and the flesh is pickled or salted, and sent all over Europe. So prolific is this fish, that the females frequently contain a bushel of spawn each. In the roe of one of them was found no fewer than one hundred and fifty thousand million eggs!



THE GURNARD.

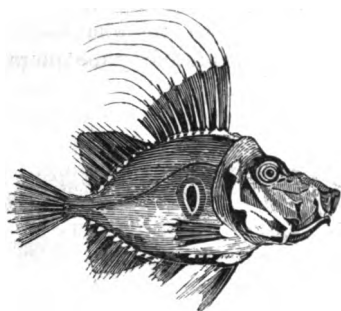
This genus is divided into several species. The Red Gurnard, the fins and body of which are of a bright red colour; the head is large, and covered with strong bony plates. The eyes are large, round, and vertical. The mouth is large: and the palate and jaws are armed with sharp teeth. The gill-membrane has seven rays. The back has a longitudinal spinous groove on each side. There are slender articulate appendages at the base of each pectoral fin. It is not unfrequent on the southern shores of England; and is often seen exposed in the fish markets of the maritime towns of

Dorset and Devonshire, as well as in Cornwall. It is a good tasted fish, when properly stuffed and baked. The flavour of the flesh is similar to that of the haddock.

Whilst it is in the water, the colours of the Red Gurnard are almost beyond conception brilliant and beautiful, particularly in the broad glare of sunshine, as they then vary, in the most pleasing manner, with every motion of the fish.

The *Gray Gurnard* usually measures from one to two feet in length. The extremity of the head, in front, is armed on each side with three short spines. The forehead and the covers of the gills are silvery; and the latter are finely radiated. The body is covered with small scales; the upper parts are of a deep gray, spotted with white and yellow, and sometimes with black; and the lower parts are silvery. About the months of May and June, the Gray Gurnards approach the sea-shores in considerable shoals, for the purpose of depositing their spawn upon the shallows; at other times they reside in the depths of the ocean, where they have a plentiful supply of food in crabs, lobsters, and shell-fish, on which it is supposed they, for the most part, feed. They are occasionally found on most of the shores of Great Britain and Ireland, in the spawning season.

The *Lucerna* is caught in the Mediterranean sea, and is of a very curious shape; its fins about the gills being so large, and spread so much like a fan on each side, that they appear somewhat like wings. The tail is bifid, and the scales very small. The flesh is esteemed among the Italians, and the *Lucerna* is often seen in the fish markets of Naples, Venice, and other towns on the sea-shore. This fish much resembles the Father-Lasher and the Gurnard.



THE JOHN DOREE.

It would be an inexcusable neglect to pass this fish unnoticed, not on account of its disputing with the haddock the honour of having been pressed by the fingers of the apostle; nor of its having been trodden upon by the gigantic foot of St. Christopher, when he carried on his shoulders a divine burden across an arm of the sea; but for the excellence of its flesh. It has been for some years in such favour with our epicures, that one of them, a comedian of high repute (Quin), took a journey to Plymouth merely to eat John Dorees in perfection. The body of this fish presents the shape of a rhomboid, but the sides are much compressed; the mouth is large, and the snout long, composed of several cartilaginous plates, which wrap and fold one over another, in order to enable the fish to catch its prey. The colour is a dark green, marked with black spots, with a golden gloss, whence the name originated. They inhabit the coasts of England, and particularly Torbay, whence they are sent to the fish market at London.

When the Doree is taken alive out of the water, it is able to compress its internal organs so rapidly, that the air, in rushing through the openings of the gills, produces a kind of noise somewhat like that which, in similar occasions, is emitted by the gurgards.



THE COD-FISH

Is a noble inhabitant of the seas ; not only on account of his size, but also for the goodness of his flesh, either fresh or salted. The body measures sometimes above three and even four feet in length, with a proportionable thickness. The back is of a brown olive colour, with white spots on the sides, and the belly is entirely white. The eyes are large and staring. The head is broad and fleshy, and esteemed a delicious dish.

The fecundity of all fishes is an object of real astonishment to every observer of nature. In the year 1790, a Cod-fish was sold in Workington market, Cumberland, for one shilling ; it weighed fifteen pounds, and measured two feet nine inches in length, and seven inches in breadth ; the roe weighed two pounds ten ounces, one grain of which contained three hundred and twenty eggs. The whole, therefore, might contain, by fair estimation, three million nine hundred and four thousand four hundred and forty eggs. From such a trifle as this we may observe the prodigious value of the fishing trade to a commercial nation, and

hence draw a useful hint for increasing it; for, supposing that each of the above eggs should arrive at the same perfection and size, its produce would weigh twenty-six thousand one hundred and twenty-three tons; and consequently would load two hundred and sixty-one sail of ships, each of one hundred tons burden. If each fish were brought to market, and sold as the original one, for one shilling, the produce then would be one hundred and ninety-five thousand pounds, that is to say, the first shilling would produce twenty times one hundred and ninety-five thousand, or three million nine hundred thousand shillings.

The chief fisheries for Cod are in the Bay of Canada, on the great bank of Newfoundland; and off the isle of St. Peter, and the isle of Sable. The vessels frequenting these fisheries are from a hundred to two hundred tons burden, and will each catch thirty thousand Cod, or upwards. The best season is from the beginning of February to the end of April. Each fisherman takes only one Cod at a time, and yet the more experienced will catch from three to four hundred in a day. It is fatiguing work, owing particularly to the intense cold they are obliged to suffer during the operation. The Latin name for this fish and several other of the kind is *asellus*, "a young ass," on account of his large head and dusky colour.

Cod frequently grow to a very great size. The largest that is known to have been caught in this kingdom was taken at Scarborough, in the year 1775; it measured five feet eight inches in length, and five feet in circumference, and weighed seventy-eight pounds. The usual weight of these fish is from fourteen to forty pounds.



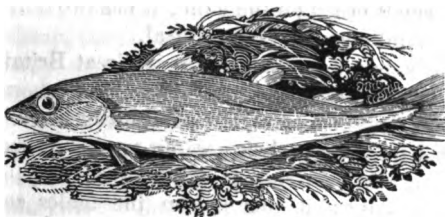
THE HADDOCK

Is much less in size than the cod-fish, and differs somewhat from it in shape; it is of a bluish colour on the back, with small scales; a black line is carried on from the upper corner of the gills on both sides down to the tail; in the middle of the sides, under the line a little beneath the gills, is a black spot on each shoulder, which resembles the mark of a man's finger and thumb; from which circumstance it is called *St. Peter's* fish, alluding to the fact recorded in the seventeenth chapter of *St. Matthew*: "Go thou to the sea, and cast a hook, and take up the fish that first cometh up; and when thou hast opened his mouth, thou shalt find a piece of money; that take and give unto them for me and thee." And while *St. Peter* held the fish with his fore finger and thumb, it is fabled, that the skin received then, and preserved to this moment, the hereditary impression.

Haddocks migrate in immense shoals, which usually arrive on the Yorkshire coasts about the middle of winter. These shoals are sometimes known to extend from the shore nearly three miles in breadth, and in length from Flamborough Head to Tynemouth Castle,

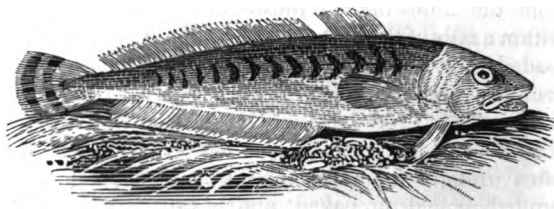
a distance of fifty miles; and, perhaps, even further. An idea of the number of Haddocks may be formed from the following circumstance: Three fishermen, within a mile of the harbour of Scarborough, frequently loaded their boat with these fish twice a day, taking each time a ton weight of them.

The flesh of the Haddock is harder and thicker than that of the whiting, and not so good; but it is often brought upon the table as a good dish, either broiled, boiled, or baked, and is esteemed by many above several others. The Haddocks caught on the Irish coast, near Dublin, are unusually large, and of a fine flavour; they have, with the firmness of the turbot, much of its sweetness.



THE WHITING

Is seldom more than twelve inches in length, and of a slender and tapering form. The scales are small and fine. The back is silvery, and when just taken out of the sea, reflects the rays of light with great lustre and gloss. The flesh is light, wholesome, and gently nourishing: it is often allowed to sick people and convalescent stomachs, when other food is deemed hurtful. The Whiting is found in all parts, about the coasts of England, and is in its proper season from August to February.

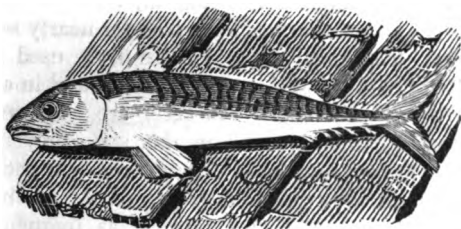


THE LING

Is from three to four feet in length, and some have been caught much longer. The body is long, the head flat, the teeth in the upper jaw small and numerous, with a small beard on the chin ; it has two dorsal fins, two pectoral ones, and one ventral.

They abound on the coasts of Great Britain and Ireland, and great quantities are salted for home consumption and exportation. On the eastern coasts of England they are in their greatest perfection from the beginning of February to the end of May. They spawn in June ; at this season the males separate from the females, who deposit their eggs in the soft oozy ground at the mouth of large rivers.

In a commercial point of view, the Ling may be considered a very important fish. Nine hundred thousand pounds weight are annually exported from Norway. In England these fish are caught and cured in somewhat the same manner as the cod. Those which are caught off the shores of America are by no means so much esteemed as those which frequent the coasts of Great Britain and Norway ; and the Ling in the neighbourhood of Iceland are so bad, that the inhabitants are unable to find a sale for them in any country except their own.



THE MACKEREL

Is taken and well known in all parts of the world. It is usually about a foot in length, or more; the body is thick, firm, and fleshy, slender toward the tail; the snout sharp, the tail forked, the back of a lovely green, beautifully variegated, or, as it were, painted with black strokes; the belly is of a silvery colour, reflecting, as well as the sides, the most elegant tints, imitating the opal and the mother of pearl. Nothing can be more interesting and pleasing to the eye, than to see them, just caught, brought on shore by the fishermen, and spread, with all their radiancy, upon the pebbles of the beach, at the first rays of the rising sun; but when they are taken out of their element, they quickly die.

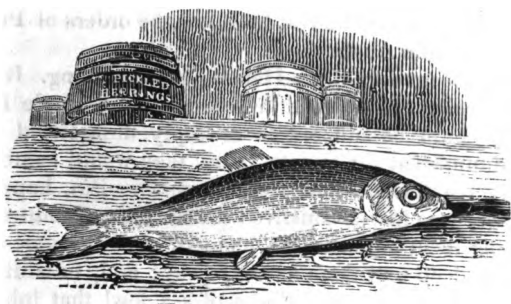
Mackerel visit our shores in vast shoals; but, from being very tender and unfit for long carriage, they are found less useful than other gregarious fish. The usual bait is a bit of red cloth, or a piece of the tail of the Mackerel. The great fishery for them is in some parts of the west coast of England. This is of such an extent as to employ, in the whole, a capital of nearly two hundred thousand pounds. The fishermen go out to the distance of several leagues from the shore, and

stretch their nets, which are sometimes several miles in extent, across the tide during the night. A single boat has been known to bring in, after one night's fishing, a cargo that has been sold for nearly seventy pounds. The roes of the Mackerel are used in the Mediterranean for *caviar*. In Cornwall, and in several parts of the continent, Mackerel are preserved by pickling and salting; and in this state they have a little the flavour of salmon. Their voracity has scarcely any bounds; and when they get among a shoal of herrings, they make such havock, as frequently to drive it away.



THE GAR-FISH,

OF which the figure above is an exact representation, is of a very extraordinary form. The body is not unlike that of a mackerel, for the shape and colour, but the nose, or upper jaw, is protracted into a kind of lance, nearly as long, in itself, as the rest of the body. It is vulgarly supposed that this fish precedes and leads the phalanxes of mackerel through the regions of the deep; and, as a faithful and well informed pilot, traces to them the way, points out their dangers, and conducts them to their destination. A curious singularity is, that the bones of this creature are of a bright green colour; the flesh is not so firm nor of so good a flavour as that of the mackerel, but yet the fish sells well whenever it comes to market.



THE HERRING

COMES next after the mackerel in shape, as well as in delicacy of taste, although it differs much in flavour. It is about nine or ten inches long, and about two and a half broad, and has bloodshot eyes; it has large roundish scales; a forked tail; the body is of a fat, soft, delicate flesh, but stronger than that of the mackerel, and therefore less wholesome. Yet some people are so very fond of it, that they call the Herring *the King of Fishes*. They swim in shoals, and spawn once a year, about the autumnal equinox, at which time they are the best. These swarms of fish emigrate from the northern seas, and in an immense column travel gently down till they arrive at the farthest point of the British islands, and then divide into two or three branches. One, following the coast of Holland, steers through the British Channel, leaving plenty after them in the fishermen's nets. The second branch, which is the smallest, enters St. George's Channel between Great Britain and Ireland. The western part of the column, or third division, follows the western coast of Ireland,

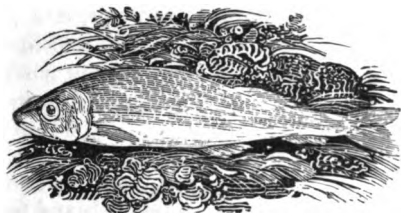
and meets the others on the occidental part of Brittany. Hence they part themselves into many other divisions, and some, entering the Mediterranean at Gibraltar, leave the rest to follow the orders of Providence in the Austral seas.

The fecundity of the Herring is astonishing. It has been calculated, that if the offspring of a single Herring could be suffered to multiply unmolested and undiminished for twenty years, they would exhibit a bulk ten times the size of the earth. But, happily, Providence has so contrived the balance of nature by giving them innumerable enemies. All the monsters of the deep find them an easy prey; and, in addition to these, the immense flocks of sea fowl that inhabit the polar regions, watch their outset, and spread devastation on all sides.

In the year 1773, the Herrings, for two months, were in such immense shoals on the Scotch coasts, that it appears, from tolerably accurate computations, no fewer than one thousand six hundred and fifty boat-loads were taken in Loch Terridon in one night. These would, in the whole, amount to nearly twenty thousand barrels.

This fish is prepared in different ways, in order to be kept for use through the year. The white, or pickled Herrings, are washed in fresh water, and left the space of twelve or fifteen hours in a tub full of strong brine, made of fresh water and sea salt. When taken out, they are drained, and put in rows or layers, in barrels, with salt.

The red Herrings are prepared in the same manner, with this difference, that they are left in the brine double the time above mentioned; and when taken out, placed in a small chimney constructed for the purpose, and containing about twelve thousand; where they are smoked by means of a fire underneath, made of brushwood, for the space of twenty-four hours.



THE SPRAT,

A WELL known fish, between four or five inches in length; the back fin very remote from its nose; the lower jaw longer than the upper, the eyes bloodshot, like those of the Herring; and in shape so much like that fish, that several ichthyologists have taken the former to be the same as the latter, but not yet grown to its proper shape. But upon a nearer examination it has been ascertained that the Sprat has but forty-eight dorsal vertebræ, whereas the herring has fifty-six: a difference so essential, that neither age nor any other cause can obliterate it. They arrive yearly in the beginning of November in the river Thames; and generally a large dish of them is presented on the table at Guildhall, on Lord Mayor's Day. They continue through the winter, and depart in March. They are sold by measure, and yield a great deal of sustenance to poor people in the winter season. It is reported that they have been taken yearly about Easter time in a lake in Cheshire, called Kostern Meer, and in the river Mersey, in which the sea ebbs and flows seven or eight miles below the lake.

This fish is caught on the southern shores of France,

where it is held in great repute ; and from its abounding in the neighbourhood of the island of Sardinia, it is in that country called the Sardine. It is sent here pickled in the same way as herrings, and packed in barrels.

THE PILCHARD.

THE chief difference between this fish and the herring is, that the body of the former is more round and thick ; the nose shorter in proportion, turning up ; and the under jaw shorter. The back is more elevated, and the belly not so sharp. The scales adhere very closely, whilst those of the herring easily drop off. It is also, in general, of considerably smaller size.

About the middle of July, the Pilchards appear in vast shoals off the coasts of Cornwall. These shoals remain till the latter end of October, when it is probable they retire to some undisturbed deep, at a little distance, for the winter.

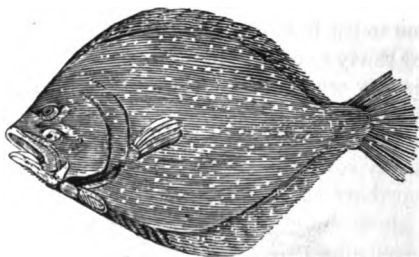
The Pilchard fishing is an important branch of commerce. From a statement of the number of hogsheads exported each year, for ten years, from 1747 to 1756 inclusive, from the four ports of Fowy, Falmouth, Penzance, and St. Ives, it appears that Fowy exported yearly one thousand seven hundred and thirty-two hogsheads ; Falmouth, fourteen thousand six hundred and thirty-one ; Penzance and Mount's Bay, twelve thousand one hundred and forty-nine ; St. Ives, one thousand two hundred and eighty-two ; in all, twenty-nine thousand seven hundred and ninety four hogsheads. Every hogshead, for ten years, last past, together with the bounty allowed for exportation, and the oil made out of it, has amounted, one year with another,

at an average, to the price of one pound thirteen shillings and three-pence; so that the cash paid for Pilchards exported has, at a medium, annually amounted to the sum of forty-nine thousand five hundred and thirty-two pounds. The above was the state of the fishing several years ago; at present it is still more extensive.



THE ANCHOVY.

LIKE the herring and sprat, these fish leave the deeps of the open sea, in order to frequent the smooth and shallow places of the coasts for the purpose of spawning. The fishermen generally light a fire on the shore, for the purpose of attracting the Anchovies, when they fish for them in the night. After they are cleaned, and their heads are cut off, they are cured in a certain way, and packed in small barrels for sale and exportation. Anchovies are occasionally found both in the North Sea and in the Baltic; but it is supposed that they are in much greater number in the Mediterranean than in any other part of the world. They have sometimes, though rarely, been caught in the river Dee, on the coasts of Flintshire and Cheshire. The upper jaw of this fish is longer than the under; the back is brown; the sides and belly silvery; fins short; the dorsal fin, opposite the ventrals, transparent; the tail fin forked. Its length about three inches.



THE TURBOT, AND HOLIBUT.

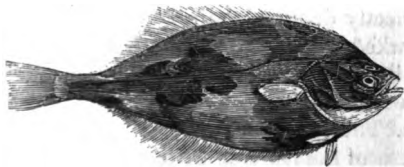
THE Turbot is a well known and much esteemed fish, for the delicate taste, firmness, and sweetness of its flesh. Juvenal, in his fourth satire, gives us a very ludicrous description of the Roman emperor Domitian assembling the senate, to decide how and with what sauce this marine monster should be eaten. This fish is sometimes two feet and a half long, and about two broad. The scales on the skin are so very small that they are hardly perceptible. The colour of the upper side of the body is a dark brown, spotted with dirty yellow; the under side a pure white, tinged on the edges with somewhat like flesh colour, or pale pink. There is a great difficulty in baiting the Turbot, as he is very fastidious in his food; nothing can allure him but herrings, or small slices of haddocks, and lampreys; and as he lies in deep water, flirting and paddling on the ooze at the bottom of the sea, no net can reach him, so that he is generally caught by hook and line. They are found chiefly on the northern coasts of England, Scotland, and Holland; but there are several other fishes, which, resembling the Turbot in shape, are much inferior to him in flavour. In

many parts of England the Turbot and Holibut are sold indiscriminately for each other. They are, however, perfectly distinct, the upper parts of the former being marked with large, unequal, and obtuse tubercles; while those of the latter are quite smooth, and covered with oblong soft scales that adhere firmly to the body. The eyes of the Turbot also are on the left, whilst those of the Holibut are on the right of the head. Holibuts are sometimes caught of such immense size, on the northern coasts of England, as to weigh from two to three hundred pounds. Olassen speaks of having seen one in Iceland which measured five ells in length.



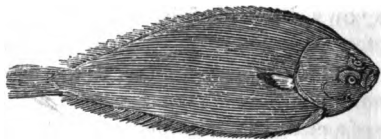
THE PLAICE,

A WELL-KNOWN English fish, and a species of the pleuronectes. It has smooth sides, an anal spine, and the eyes and six tubercles are placed on the same side of the head. The body is very flat, and the upper part of the fish of a clear brown colour, marked with orange-coloured spots, and the belly white. They spawn in the beginning of February, and some of them grow to eight or nine pounds in weight; they assume then something like the shape of a turbot, but the flesh is very different, being soft and nearly tasteless.



THE FLOUNDER.

THE principal distinction between the Plaice and the Flounder consists in the former having a row of six tubercles behind the left eye, of which this fish is entirely destitute; it is also a little longer in the body, and, when full grown, somewhat thicker. The back is of a dark olive colour, spotted; some of them, with round reddish spots on the back and fins. In taste they are reckoned by some more delicate than the plaice. They live long after their being taken out of their element, and are often cried in the streets of London in the morning; but they seldom appear on the table of the rich and opulent. They are common in the British seas, and in all large rivers which obey the impression of the tide, and feed upon decayed carcasses at the bottom of the water.



THE SOLE

Is well known as a very excellent fish, whose flesh is firm, delicate, and of a pleasing flavour. They grow to the length of eighteen inches, and even more in some of our seas. They are often found of this size

and superiority in Torbay, whence they are sent to market at Exeter, and several other towns in Devonshire and the adjacent counties. They are found also in the Mediterranean and several other seas; and, when in season, are in great requisition for the most luxurious tables. The upper part of the body is brown, the under part white; one of the pectoral fins is tipped with black; the sides are yellow, and the tail rounded at its extremity. It is said that the small Soles, caught in the northern seas, are of a much superior taste to the large ones, which the southern and western coasts afford.

This fish has also the quality of keeping sweet and good for several days, even in hot weather, and it is thought to acquire a more delicate flavour by being thus kept. On this account it is that Soles, in the London markets, are frequently more esteemed than those which are cooked immediately after they are taken out of the sea.

In the economy of the Sole, we have an account of one circumstance which is very remarkable: among various other marine productions, they have been known to feed on shell-fish, although they are furnished with no apparatus whatever in their mouth for reducing these to a state calculated for digestion. Some Soles that were purchased by Mr. Collinson, had their bellies hard and prominent, and appeared to contain rows of some hard substance. On the fish being opened, these were found to be rows of shell-fish, which, from the bulging of the shells, and the intervening interstices, gave the intestines somewhat the appearance of strings of beads. On further examination, some of them were observed to be nearly dissolved, others partly so, but many of them were whole. The usual food of the Sole is the spawn and young of other fish.

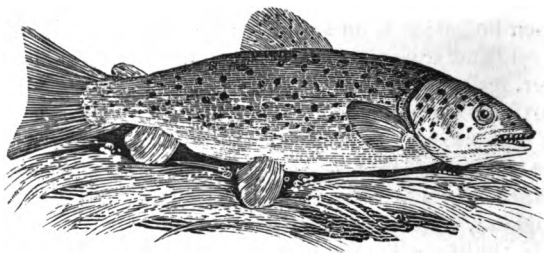


THE SALMON

Is the boast of large rivers, and one of the noblest inhabitants of the sea, if we esteem him by his bulk, his colour, and the sweetness of his flesh. They are found of a great weight, and sometimes measure five feet at least in length. The colour is beautiful, a dark blue dotted with black spots on the back, decreasing to silvery white on the sides, and white with a little shade of pink on the belly. The fins are comparatively small. Destined by nature to feed man, they come up the rivers that run down from inland countries, and there the female deposits her eggs. Soon after, both she and the male take an excursion to the vast regions of the sea, and do not return to the land streams again till the next year, for the same purpose. They are so powerfully impelled by this natural sense, that when swimming up a river, if they are stopped by a fall of water, they spring up with such a force through the descending torrent, that they stem it till they reach the higher bed of the stream. Whether they be attracted, to overcome so many difficulties and hardships, by the innate desire of spawning again where they were originally deposited in the shape of eggs, or by any other cause, is not yet ascertained. The Salmon is in a great measure confined to the

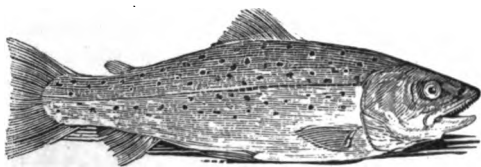
northern seas, being unknown in the Mediterranean, and in the waters of other warm climates. The flesh is red when raw, redder when salted, and little paler when boiled; it is an agreeable food, fat, tender, and sweet, and excels in richness all other sea fish: however, it does not agree with all stomachs, and is chiefly hurtful when eaten by sick persons. The Salmon feeds on minnows and other small fish. The pickled Salmon is a good substitute for the fresh one, and is a great branch of trade between Newcastle and the rest of England, where it is in great requisition.

In the river Tweed, about the month of July, the capture of Salmon is astonishing: often a boat-load, and sometimes nearly two, may be taken at a tide; and in one instance, more than seven hundred fish were caught at a single haul of the net. From fifty to a hundred at a haul, are very common. Most of those that are taken before the setting in of the warm weather, are sent fresh to London, if the distance will permit. The others are salted, pickled, and dried, for the London and continental markets. The season for fishing commences in the Tweed on the thirtieth of November, and ends about old Michaelmas day. On this river there are about forty considerable fisheries, which extend upwards, about fourteen miles from the mouth; besides many others of less consequence. These, several years ago, were let at an annual rent of more than ten thousand pounds; and to defray this expense, it has been calculated that upwards of two hundred thousand Salmon must be caught there, one year with another. The principal Salmon fisheries in Europe are in the rivers, or on the sea-coasts adjoining to the large rivers, of England, Scotland, and Ireland. The chief English rivers, in which they are caught, are the Tyne, the Trent, the Severn, and the Thames.



THE SALMON TROUT,

ALSO called the *Bull Trout*, or *Sea Trout*, is thicker than the common trout in the body, weighing about three pounds; it has a large smooth head, which, as well as the back, is of a bluish tint, with a green gloss; the sides are interspersed with black spots; the tail is broad chiefly at the end. It is said that in the beginning of summer the flesh of this fish begins to redden, and holds this colour till the month of August; which circumstance is very probably owing to their being on the point of spawning. Like the Salmon, this fish is an inhabitant of the sea; but in the months of November and December it enters the rivers, in order to deposit its ova; and consequently, in the spawning season, it is occasionally found in lakes and streams, at a great distance from the sea. It is very delicate, and much esteemed on our table; but as it contains a great deal of fat, it ought to be dressed as soon as possible, for it would soon turn to putrefaction. Some people prefer this to Salmon, but they are both apt to cause sickness when eaten in too great a quantity.



THE TROUT.

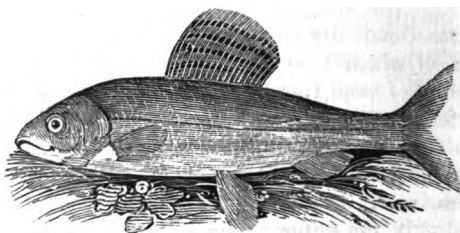
As the Trout, in speckled pride,
Playful from its bosom springs,
To the banks a ruffled tide
Verges in successive rings.

CUNNINGHAM.

THIS fish, in figure, resembles the salmon; it has a short roundish head, and a blunt snout. Trouts breed and live constantly in small rivers, the transparent stream of which frets along upon the clean pebbles and beds of sand that lie at the bottom of the water. They feed on river flies and other water insects, and are so fond of them, and so blindly voracious, that anglers deceive them with artificial flies made up of feathers, wool, and other materials, which resemble very closely the natural ones. In Lough Neagh, in Ireland, Trouts have been caught weighing thirty pounds; and we are told, that in the lake of Geneva, and in the northern lakes of England, they are found of a still larger size. It holds the first place among the river fish, and its flesh is very delicious, but hard of digestion when old, or kept too long. They spawn in the month of December, and deposit their eggs in the gravel at the bottom of rivers, dykes, and ponds. To the contrary of many other fish, the Trouts are least esteemed when nearest spawning. They are properly in season in the months of July and August, being then fat and well tasted.

The following beautiful passage, from Smollett's Ode to Leven Water, may be appropriately given here:—

No torrents stain thy limpid source;
No rocks impede thy dimpling course,
That sweetly warbles o'er its bed,
With white, round, polish'd pebbles spread;
While, lightly poised, the scaly brood,
In myriads, cleave thy crystal flood;
The springing Trout, in speckled pride;
The salmon, monarch of the tide;
The ruthless pike, intent on war:
The silver eel, and mottled par.
Devolving from thy parent lake,
A charming maze thy waters make,
By bowers of birch and groves of pine,
And hedges flower'd with eglantine.



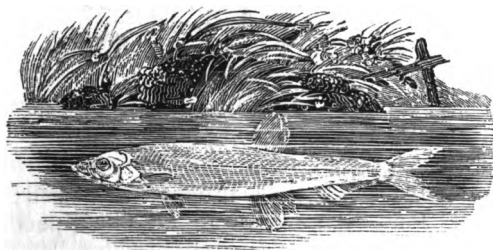
THE GRAYLING, OR UMBER,

Is longer than the trout, and measures sometimes twenty inches in length. The back and sides are of a silvery gray, and when the fish is first taken out of the water, slightly varied with blue and gold. The coverts of the gills are of a glossy green, and the scales are large.

Grayling delight chiefly in clear and rapid streams, where they afford great amusement to the angler. They are very voracious, and rise eagerly to the fly.

They are bolder fish than trout, and even, if missed several times successively, they will still pursue. They feed principally on worms, insects, and water snails; and the shells of the latter are often found in great quantity in their stomachs. They spawn in the months of April and May. The largest fish of this species, ever heard of, was one caught in the Severn, which weighed five pounds.

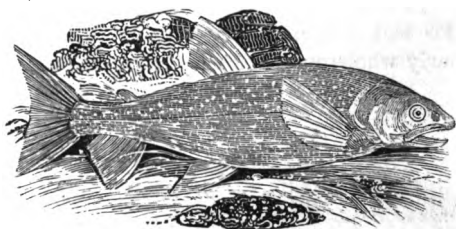
Ancient writers strongly recommended these fish as food for sick persons; they considered them to be peculiarly wholesome, and easy of digestion.



THE SMELT, OR SPARLING,

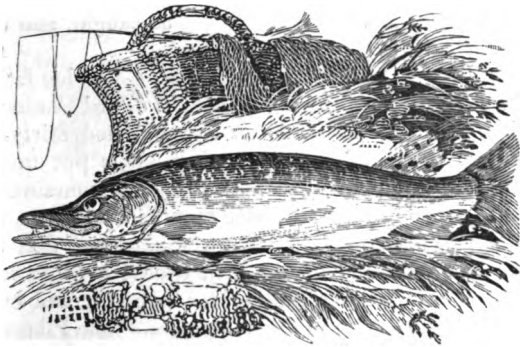
Is in length about eight or nine inches, and nearly one broad; the body is of a light olive green, inclining to silver white. The smell of this small fish, when fresh and raw, is not unlike that of ripe cucumbers, but it goes off in the frying-pan, and then the smelt yields a tender and delicate food. They inhabit the sea-coast and harbours; and are taken in the Thames, and other large rivers, which they ascend in the spawning season. The skin of this fish is so transparent, that, with the help of a microscope, its blood may be seen to circulate.

Smelts are found on the coasts of all the northern countries of Europe, and even in the Mediterranean. They vary considerably in size. Mr. Pennant states that the largest he had ever heard of measured thirteen inches in length, and weighed half a pound.



THE CHAR, OR ALPINE TROUT,

Is not unlike the trout; the scales are very small; the colour of the body marked with numerous spots and points, black, red, and silvery, mixed with yellow, and without a circle; the back tinged with olive green; the belly white, the snout bluish. All the fins, except those of the back, are reddish, and the adipose one is red on its edge. It measures, in length, about twelve inches. This fish is esteemed very delicate by all nations, and chiefly by the Italians. They have it plentifully in Lago di Gardo, near Venice; and it is also found, not only in our northern lakes in Westmoreland and Scotland, but also in those large ponds of water at the foot of the mountains in Lapland. The potted Char enjoys a high and deserved reputation in several parts of the continent, as well as in England.



THE PIKE.

THE body of this fish is a pale olive gray, deepest on the back, and marked on the sides by several yellowish spots or patches; the abdomen white, slightly spotted with black; its length is from four to eight feet. The flesh is white and firm, and considered very wholesome; the larger and older it is, the more it is esteemed. There is scarcely any fish of its size in the world, that in voracity can equal the Pike. It lives in rivers, lakes, and ponds; and in a confined piece of water it will soon destroy all other fish, as it generally does not feed upon any thing else, and often swallows one nearly as big as itself; for through its greediness in eating, it takes the head foremost, and so draws it in by little and little at a time, till it has absorbed the whole. I remember to have seen, in the stomach of a large Pike, a gudgeon of good size, the head of which had already received clear marks of the power of digestion, whilst the rest of the fish was still fresh and unimpaired.

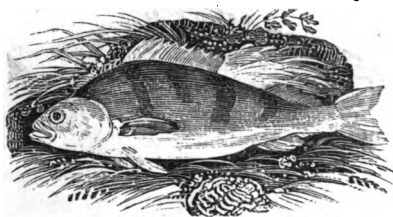
“I have been assured (says Walton) by my friend

Mr. Seagrave, who keeps tame otters, that he has known a Pike, in extreme hunger, fight with one of his otters for a carp that the otter had caught, and was then bringing out of the water."

Boulker, in his *Art of Angling*, says, that his father caught a Pike, which he presented to Lord Cholmondeley, that was an ell long, and weighed thirty-six pounds. His lordship directed it to be put into a canal in his garden, which at that time contained a great quantity of fish. Twelve months afterwards, the water was drawn off, and it was discovered that the Pike had devoured all the fish, except a large carp that weighed between nine or ten pounds; and even this had been bitten in several places. The Pike was again put in, and an entire fresh stock of fish for him to feed on: all these he devoured in less than a year. Several times he was observed by workmen who were standing near, to draw ducks and other water-fowl under water. Crows were shot and thrown in, which he took in the presence of the men. From this time the slaughtermen had orders to feed him with the garbage of the slaughter-house; but being afterwards neglected, he died, as is supposed, from want of food.

In December 1765, a Pike was caught in the river Ouse, that weighed upwards of twenty-eight pounds, and was sold for a guinea. When it was opened, a watch with a black riband and two seals were found in its body. These, it was afterwards found, had belonged to a gentleman's servant, who had been drowned in the river about a month before.

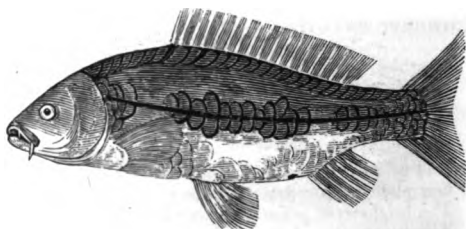
It is a very long-lived fish. In the year 1497, a Pike was caught at Heilbrun in Swabia, to which was affixed a brazen ring, with the following words engraved on it in Greek characters: "I am the fish, which was first of all put into this lake, by the hands of the governor of the universe, Frederick the Second, the fifth of October, 1230."



THE PERCH

SELDOM grows to any great size; yet we have an account of one which is said to have weighed nine pounds. The body is deep, the scales rough, the back arched, and the side lines placed near the back. For beauty of colours, the Perch vies with the gaudiest of the inhabitants of the ponds, lakes, and rivers; the back glows with the deep reflections of the brightest emeralds, divided by five broad stripes; the belly imitates the tints of the opal and mother of pearl; and the ruby hue of the fins completes an assemblage of colours most harmonious and elegant. It is a gregarious fish, and is caught in several rivers of this island; the flesh is firm, delicate, and much esteemed. They are generally boiled in wine or vinegar, which adds a considerable solidity and flavour to the flesh.

It is generally believed that a pike will not attack a full grown Perch: he is deterred from so doing by the spiny fins of its back, which this fish always erects at the approach of an enemy. They are so voracious, that it is said, if an expert angler find a shoal of them, he may catch every one. If, however, a single fish escape that has felt the hook, all is over; this fish becomes so restless, as soon to occasion the whole shoal to leave the place.



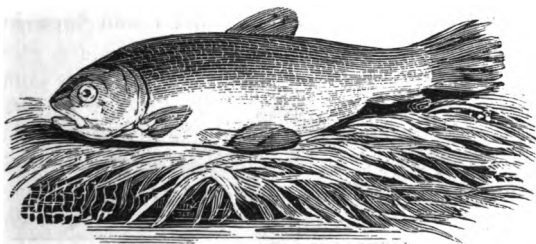
THE CARP

HAS a great fame for the sweetness of its flesh, and appears often with great repute on our tables, when of moderate size, that is, when measuring about twelve inches between the eye and the beginning of the tail. The scales are large, with a golden gloss, upon a dark green ground. These fish grow sometimes to a great size, being then three or four feet in length, and contain a great quantity of fat. The soft roe of the Carp is esteemed a great delicacy among epicures. In the canals of Chantilly, formerly the seat of the Prince of Condé, Carps have been kept for above one hundred years, most of them appearing hoary through old age, and so tame, that they answered to their names when the keeper called them to be fed. This fish has very small teeth and a broad tongue; the tail is widely spread, as well as the fins, which are inclined to a reddish tint. Those that live in rivers and running streams are most approved, as those which inhabit pools and ponds have generally a muddy disagreeable taste. Though so cunning in general as to be called the River Fox, yet at spawning time they suffer themselves to be tickled and caught without attempting to escape. It is said that Carp were brought first to England about two hundred and fifty years ago. They are very tenacious of life, and when cut into quarters, the head being divided in two,

the pieces have often been seen to jump off the dresser table, and even *out of the frying-pan into the fire*, which circumstance has given birth to the proverb.

In genial spring, beneath the quivering shade,
Where cooling vapours breathe along the mead,
The patient fisher takes his silent stand
Intent, his angle trembling in his hand ;
With looks unmoved he hopes the scaly breed,
And eyes the dancing cork and bending reed.
Our plenteous streams a various race supply,
The bright eyed perch with fins of Tyrian dye ;
The silver eel in shining volumes roll'd,
The yellow Carp in scales bedropp'd with gold ;
Swift trouts, diversified with crimson stains ;
And pikes, the tyrants of the watery plains.

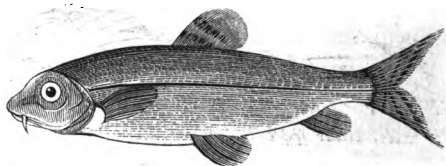
POPE.



THE TENCH

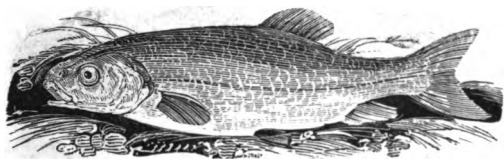
BELONGS to the elegant genus cyprinus ; like the carp, it is remarkably tenacious of life. Its body is thick and short, and seldom exceeds ten or eleven inches in length. The irides are red ; the back, dorsal, and ventral fins, dusky ; the head, sides, and belly, of a greenish hue mixed with gold ; and the tail very broad. Although they delight in still water, in the muddy parts of ponds, where, secure, as they suppose, from the voracious ramblings and dreadful proscriptions of the tyrant pike, and from the hook of the angler, they live nearly motionless, covered by the flags, reeds, and weeds that shade their place of retirement ; this inac-

tive life has enabled some individuals of this species to attain an extraordinary bulk, and Tenches have been seen of an astonishing size comparatively with the common length and thickness of the fish. We have read, as a well authenticated fact, that in the northern part of England, and in a piece of water, which, having been long neglected, was filled with pieces of timber, stones, and rubbish, two hundred Tench and as many perch, of good size, had been found; and that one fish in particular, that seemed to have been shut up in a nook, had not only surpassed in size the common ones, but had also taken the form of the hole in which it had been accidentally confined. The body was in the shape of a half moon, answering in the convexity of its outlines the concavity of the dungeon where this innocent sufferer had been immured for several years.



THE GUDGEON,

A WELL known fresh water fish, generally found in gentle streams; it is between five and six inches in length. The back brown, the belly white, the sides tinged with red, and the tail forked. They spawn three or four times in summer, and feed upon wasps and any flies which approach too near the surface of the water. The flesh of the Gudgeon is white, of excellent flavour, and easy of digestion. In the months of September and October, these fish are taken in the rivers of some parts of the continent, in great abundance; and the markets are well supplied with them. They are caught both in nets and with lines.



THE CHUB

Is of a coarse nature, and full of bones; it seldom exceeds the weight of five pounds. The body is of an oblong shape, nearly round; the head, which is large, and the back, are of a deep dusky green, the sides silvery, and the belly white; the pectoral fins are of a pale yellow, the ventral and anal ones red; and the tail brown, tinged with blue at its extremity, and slightly forked. This fish frequents the deep holes of rivers, but in the summer season, when the sun shines, it ascends to the surface, and lies quiet under the cooling shade of the trees that spread their foliage on the verdant banks; but yet, though it seems to indulge itself in slumbers, the fear of danger keeps the creature awake, and at the least alarm it dives with rapidity to the bottom. It lives on all sorts of insects. In March and April the Chub is to be caught with large red worms; in June and July with flies, snails, and cherries; but in August and September the proper bait is good cheese pounded in a mortar, with some saffron and a little butter. When the Chub seizes a bait, it bites so eagerly, that its jaws are often heard to chop like those of a dog. It, however, seldom breaks its hold, and, when once struck, it is soon tired.

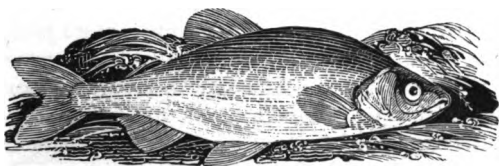


THE DACE

RESEMBLES the chub in its form, but is less, and of a lighter colour; it is a gregarious fish, frequenting the same places, and remarkably prolific. The body seldom extends ten inches in length; and, like the rest of the leather-mouth kind, it has no teeth in its jaw, but only in its throat; a curious contrivance, which Providence has thought proper to employ, to enable the fish more easily to triturate its food, even at the moment that the throat is busy in the act of swallowing. Its back is of a dusky colour, tinged with yellow and green, and the sides and belly of a silvery cast.

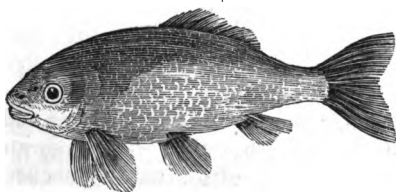
They spawn in March, and are in season about three weeks afterwards. They improve, and are good about Michaelmas; but in February they are best. If, when just taken out of the water, they are scotched and broiled, they are said to be more palatable than herrings.

They are very lively creatures, and, if kept in ponds, may live a considerable time. It is of an elegant shape, and its rapid evolutions in the water are greatly facilitated by six oars of a proportionate extent, and a forked rudder at the end of the body.



THE ROACH

BELONGS also to the cyprinus genus, and is remarkable for its numerous progeny. It is a deep yet thin made fish, in shape nearly resembling the bream, but approaching to the carp by the breadth and shape of its scales, which are large and deciduous. The soundness of the flesh is become proverbial, and pleases the taste by a peculiar delicacy of flavour. The belly fins are, like those of the perch, of a bright crimson, and the irides of the eyes sparkle like rubies and garnets. The length of the Roach is commonly between nine and ten inches, but sometimes much greater.



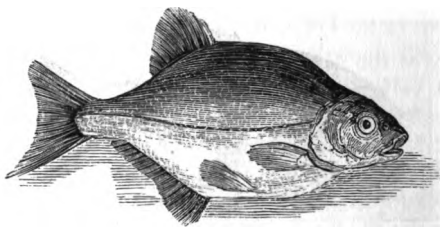
THE GOLD-FISH, OR GOLDEN CARP,

WAS originally brought from China, and first introduced into England in 1661, but is now become quite common in this kingdom, and will breed as freely in open water as the carp. It seldom exceeds the length

of seven inches and a half, and very few attain this size. They are here, as well as in China, highly valued by people of fashion. Nothing is more pleasing than to see them glide along and play in the transparent crystal of a piece of water in a garden or park, whilst their smooth and broad scales, reflecting the versatile rays of the sun, shoot the richest sparks of light to the eye of the beholder. They are often kept within the small compass of a glass bowl, where they acquire a certain tameness and docility, most pleasing to their keepers, whom they seem to know after having been fed there for some time.

The smallest fish are preferred, not only from their being more beautiful than the larger ones, but because a greater number of them can be kept. These are of a fine orange red colour, appearing as if sprinkled over with gold-dust. Some, however, are white, like silver; and others, white spotted with red.

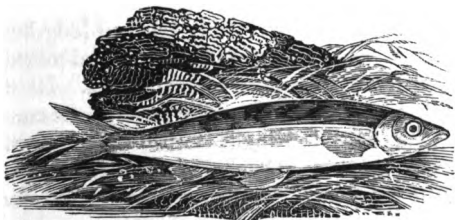
When Gold-fish are kept in ponds, they are often taught to rise to the surface of the water at the sound of a bell, to be fed.



THE BREAM

Is a flattish fish, not unlike the carp in several points, but much broader in proportion to its length and thickness. Its head is truncated, the upper jaw a little projecting; the forehead a bluish black; cheeks yel-

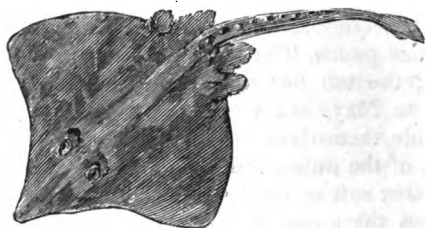
lowish; body olive, paler below; fins obscure, with an oblong conical process at the base of the ventral fins; twenty-nine rays in the anal fin; length about two feet. They abide in the deepest parts of rivers, lakes, and ponds. The scales are large and of a bright colour; the tail has the form of a crescent. They spawn in May, but when they are near that time, they hide themselves so curiously in the ooze at the bottom of the water, that they are very seldom found with either soft or hard roe in them, so that in some countries the name is often used to denote sterility. The flesh is not comparable to that of the carp.



THE MINOW.

THE body of the Minow is of a blackish green, with blue and yellow variegations; the abdomen silvery; scales small; ten rays in the ventral, anal, and dorsal fins; tail forked, and marked near the base with a dusky spot. Its length about three inches.

This beautiful and well known fish is frequent in clear gravelly streams and rivulets in many parts of Europe. In Britain it is observed to appear in March, and is seldom seen after October. The Minow is gregarious; it spawns in June, and is, indeed, found in roe during the greater part of the summer. It is easily tamed; and, in captivity, may be taught to pick flies or filaments of beef from the hand.



THE SKATE

Is a species of the Ray. This fish had long been disregarded in this country as a coarse, bad-tasted food, but it appears now upon our best tables. Its flesh is white, firm, and good. In some parts of the continent, where these fish are caught in great abundance, they are dried for sale. The best season for skate is the spring of the year. The body is broad and flat, of a brown colour on the back, and white on the belly; the head is not distinct from the body, so that this fish, and all belonging to this genus, are apparently acephalous, or without a head. Dr. Monro has remarked, that in the gills of a large Skate there are upwards of one hundred and forty-four thousand subdivisions, or folds; and that the whole extent of this membrane, whose surface is nearly equal to that of the whole human body, may be seen, by a microscope, to be covered with a network of vessels, that are not only extremely minute, but exquisitely beautiful. The tail of the Skate is long and generally prickly: the eggs are often found on the beach after a storm, in the shape of a square bag, with two horns at each end, as here represented.

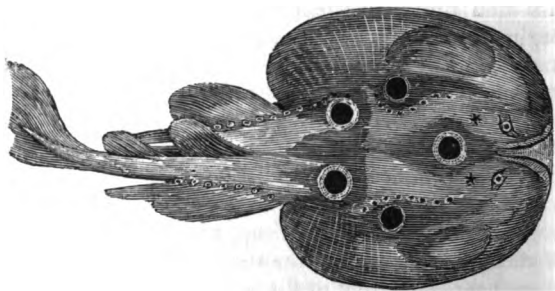


In this the embryo is contained, and grows till it has acquired strength enough to burst through its prison. The colour of the bag is maroon, and the substance like thin brown parchment or leather. The female begins to drop her eggs singly in the month of May, and continues to exclude them for several months, to the number of two or three hundred.

The Skate sometimes attains a very large size. Willoughby speaks of one so huge, that it would have served one hundred and twenty men for dinner. Some naturalists are of opinion that these fishes are the largest inhabitants of the deep, and that the smallest of them only come near the surface of the water; the biggest remaining flat at the bottom of the sea, where an unfathomable depth secures them against the wiles of man.

The *Kraken*, mentioned by Pontoppidan, the learned bishop of Bergen, is perhaps one of the kind; but we cannot give much faith to the report, as it is supposed that this enormous bulk, which inhabits the bottom of the seas about the Norway coasts, is *three or four miles in breadth*; and that, when it moves and palpitates on the ooze, it heaves the tide so vehemently, that the fishermen are obliged to steer away as fast as they can, to avoid being upset by the commotion of the water!

The *Thornback* resembles the Skate in its general appearance, the principal difference consists in the latter having sharp teeth, and a single row of spines upon the tail, while the former has blunt teeth, and several rows of spines both upon the back and tail. A Thornback was caught near the island of St. Kitt's in the year 1634, which measured twelve feet in length, and nearly ten in width. The flesh of the Thornback is inferior to that of the Skate. It is sometimes eaten in England, but is generally sold at a low price. The young ones, however, which have the denomination of *Maids*, are reckoned delicate eating.

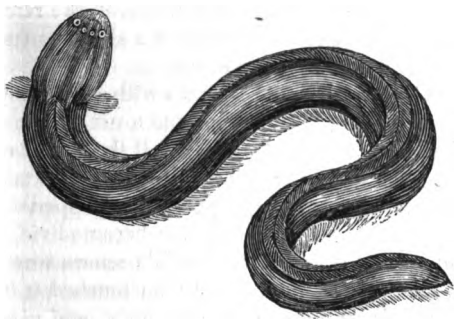


THE TORPEDO, OR ELECTRIC RAY,

Is a very wonderful marine animal, endowed by Providence with an electric power, for exciting which, it is provided with a natural apparatus. It gives a smart shock to a person who handles the fish, similar to that produced by the electrical machine. The body of this fish is nearly circular, and thicker than any other of the Ray kind, to which it belongs. They are sometimes so large as to weigh betwixt seventy and eighty pounds. The skin is smooth, of a dusky brown colour,

and white underneath. The ventral fins form on each side, at the end of the body, nearly a quarter of a circle. The tail is short, and the two dorsal fins are near its origin. The mouth is small, and, as in the other species, there are on each side below it five breathing apertures.

The shock imparted by the touch of the Cramp-fish, as the Torpedo is vulgarly called, is often attended with a sudden sickness at the stomach, a general tremor, a kind of convulsion, and sometimes a total suspension of the faculties of the mind. Such power of self defence has Providence allowed this animal! Whenever his enemy approaches him, he emits from his body that benumbing charm, which sets the other at rest instantly, and thereby he gets time to escape. But it is not a sure means of defence only, as, through it, the Torpedo benumbs his prey, and easily seizes upon it.



THE ELECTRICAL EEL

HAS been gifted by Providence with the same power as that of the preceding fish. It is about three feet in length, and twelve inches in circumference, in the thickest part of the body. The head is broad, flat,

and large; the mouth wide, and destitute of teeth; the rostrum obtuse and rounded; the eyes are small and of a bluish colour; the back is of a darkish brown, the sides gray, and the belly of a kind of dirty white. Across the body there are several annular divisions, or rather rugæ of the skin, from which the fish should seem to partake of a vermicular nature, and to have the power of contracting or dilating itself at pleasure. It is able to swim backwards as well as forwards.

Mr. Bryant mentions an instance of the shock from one of these fish being felt through a considerable thickness of wood. One morning, while he was standing by, as a servant was emptying a tub, in which an Electrical Eel was contained, he had lifted it entirely from the ground, and was pouring off the water to renew it, when he received a shock so violent as occasioned him to let the tub fall. Mr. B. then called another person to his assistance, and caused them together to lift up the tub, each laying hold only on the outside. When they were pouring off the remainder of the water, they each received a shock so smart, that they were compelled to desist.

Persons have been knocked down with a stroke. One of these fish having been taken from a net upon grass, an English sailor, notwithstanding all the persuasions that were used to prevent him, would insist on taking it up: but the moment he grasped it, he dropped down in a fit; his eyes were fixed, his face became livid, and it was not without difficulty that his senses were restored. He said that the instant he touched it "the cold ran swiftly up his arm into his body, and pierced him to the heart."

This most singular fish is peculiar to South America, where it is found only in the rocky parts of rivers, at a great distance from the sea.



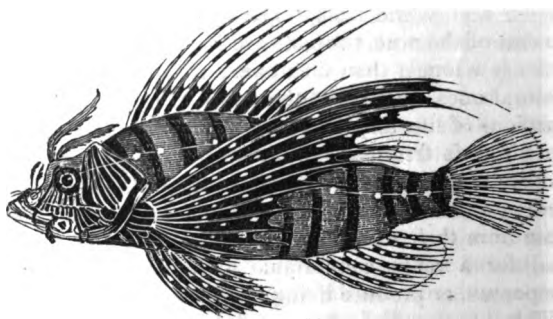
THE EEL

Is of the nature of harmless serpents ; it lives in fresh water rivers, lakes, and ponds. It is a very voracious fish, feeding on worms, the young fry of fish, and even carrion and putrid flesh. The eyes are placed near the end of the nose, the teeth are small and sharp, the under jaw longer than the upper ; the fins, chiefly the pectoral ones, rounded at their end. This fish is very tenacious of life, and lives long out of water. During the night it frequently quits its native element, to wander in the adjacent meadows for the purpose of feeding on snails and other insects. They even emigrate from their usual ditch or pond, and seek overland for a more comfortable situation. They are viviparous, or produce living offspring.

The common Eel often weighs upwards of twenty pounds. The flesh is tender, soft, and nourishing ; yet it does not agree with all stomachs.

The *Conger*, or *Sea Eel*, is much larger and thicker. Its body is dusky above, and silvery below ; the dorsal and anal fins edged with black ; lateral line dotted with white. Its flesh is firm, and was much esteemed by the ancients.

The voracity of the Conger Eel is enormously great, and it is one of the most dangerous and most powerful enemies with which the fishermen of the British islands have to contend. Being usually caught by a hook and line, it requires some care to land and kill the large ones without injury. We are informed that, on such occasions, they have been known to entwine themselves round the legs of a fisherman, and to fight with the utmost fury. A Conger, six feet in length, was caught in the Wash at Yarmouth, in April, 1808; but not until after a severe contest with the man who had seized it. The animal is stated to have risen half erect, and to have actually knocked the fisherman down before he could secure it. This Conger weighed only about sixty pounds; but some of the largest exceed even a hundred weight.



THE FLYING SCORPION.

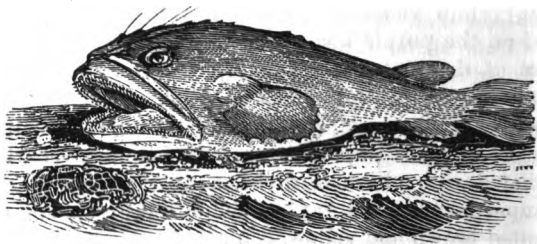
How admirable is Nature! how extensive her power, and how various the forms with which she has surrounded the united elements of animated matter! From the uncouth shape of the wallowing whale, of the unwieldy hippopotamus, or ponderous elephant,

to the light and elegant form of the painted moth or fluttering humming-bird ; she seems to have exhausted all ideas, all conceptions, and not to have left a single figure untried. The fish correctly represented above is one of those, in the outlines and decorations of which appear the discordant qualities of frightfulness and beauty. Armed *cap-a-pié*, surrounded with spines and thorns, bristling on his back and fins like an armed phalanx of lance-bearers ; and decorated on the body with yellow ribands, interwoven with white fillets ; and on the purple fins of his breast, with the milky dots of the pintado ; the Scorpion presents a very extraordinary contrast. His eyes, like those of which poets sang when celebrating the Nereids and Naiads, consist of black pupils, surrounded with a silver iris, radiated with alternate divisions of blue and black compartments. The rays of the dorsal fin are spiny, spotted brown and yellow, conjoined below by a dark brown membrane, and separate above ; the ventral fins are violet with white drops, and the tail and anal fins are a sort of tessellated work of blue, black, and white, united with the greatest symmetry, and not unlike those ancient fragments of Roman pavements often found in this island.

This variegated fish is found in the rivers of Amboyna and Japan, and even there it is scarce ; its flesh is white, firm, and well tasted, like our perch, but it does not grow so large ; it is of a very voracious stomach, feeding on the young of other fish, some of which, two inches in length, have been found in its craw. The skin has both the appearance and smoothness of parchment. To the tremendous armour of its back, fins, and tail, this fish owes the name of Scorpion.

The *Butterfly-Fish* is about six or seven inches long, and inhabits the Adriatic Sea. In October it is not uncommon at Venice, where it is offered to sale

among the great quantity of various fish which the coasts of Italy afford. It has no apparent scales, and is of a faint blue or ash colour; the dorsal fin is elegantly spotted with black, and the flesh is well tasted and tender. This fish bears some resemblance and apparent affinity to the *Scorpion*, the *Gurnard*, and *Father-Lasher*.



THE TOAD-FISH.

THE figure of the animal above has been correctly copied at the foot of Blackfriars Bridge in the month of May 1812, from a specimen exhibited there for several days by the fishermen who had caught it below the river; it is about three feet and a half long, the head forming more than the third part of the whole; the mouth is uncommonly large, and armed with several rows of white and sharp teeth, not very regularly set, and seemingly moving in the cartilaginous jaws. The tongue appears fleshy and broad, the pectoral fins widely extended, and placed a little below the eyes; and between them and the mouth a sort of suture in black stitches and in vandyke shape, appears very conspicuous upon the silvery white of the skin in this part of the animal. The back is armed with several rows of tubercles; but the most curious pecu-

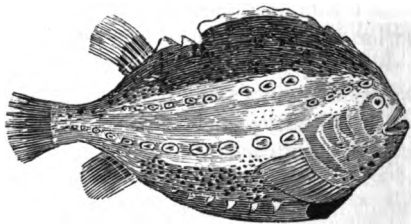
liarity belonging to this ill-shaped citizen of the deep is, that he seems to have received the gift of feet; for the ventral fins are exactly in that shape, with divided toes, the use of which appears to be that of opening the ooze at the bottom of the sea, or the sand on the shores, where this gluttonous fish conceals himself with his jaws wide open, to catch the imprudent flounder or sole, or any others which their giddiness leads to the dangerous abyss. The colour is brownish, and the scales hardly perceptible.

The *Sun-Fish* is also known by the name of Diodon. He appears like the fore part of the body of a very deep fish, which has been amputated in the middle. The mouth is small, with two broad teeth only in each jaw. When alarmed, the animal inflates his body to a globular shape of a great size, and is beset with large and sharp spines, which he can erect or depress at pleasure; by this manœuvre he defends or secures himself against the attacks of his enemies, and might have been named the hedgehog of the sea, if a different animal had not received the name. The back of this curious marine animal is of a rich blue colour. He frequents the coasts of both the ancient and new continent, and has been found on the shores of England. There are several species of this genus of fish, but the difference between them is so inconsiderable, that it would not be interesting to our readers to find here a minute description of each.



THE TRUMPET-FISH

ABIDES in the Mediterranean, and is from four to eight inches in length ; he has a large snout, long and narrow at the end ; the eyes are large, the irides red, and the body is covered with rough cinereous scales. The anterior part of the body has two bony substances like fins, and another situate on the belly. This fish is often found in the ocean, where he seems to be driven by storms, as he is seldom seen there in any other than tempestuous weather. His breathing the water out of his snout with a sounding noise, has occasioned our sailors to call him the *Trumpet*. This species belongs to the *Centriscus* genus.

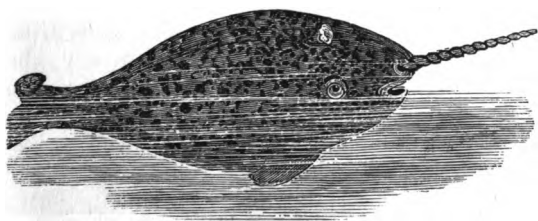


THE LUMP, SUCKER, OR SEA-OWL,

Is an odd-shaped fish ; its colour is blackish with faint red, in spots ; the belly is red ; it has no scales, but on all sides sharp, black tubercles, in shape like warts ; on each side are three rows of sharp prickles,

and on the back two distinct fins. It is taken in many places about England, and stares at the buyers on the stalls of the London markets. The Lump, properly so named from its unseemly shape, is about a foot in length, and ten inches broad. The flesh is but indifferent.

This fish, by means of its sucker, is able to adhere with great force to objects. Pennant says, that, on throwing an individual of this species into a pail of water, it adhered so firmly to the bottom, that on taking the fish by the tail, the whole pail was lifted, though it held some gallons.



THE SEA UNICORN, OR NARVAL.

A CETACEOUS fish caught in the icy sea, and very remarkable for a horn or tooth of seven or eight feet in length, proceeding from the nose; it is white like ivory, and curiously wreathed and twisted; the substance is much heavier than ivory, or any sort of bone; it is perforated to a considerable distance toward the tapering end, and has often been set with an elegant head, and used as a walking stick. The animal, when young, has generally two of these, and sometimes they are smooth. This horn, which is the offensive weapon of this creature, must be tremendous in its violent thrusts: when enraged with revenge the fish darts

through the yielding waves, wielding his spear with ease, rapidity, and strength, and goring the breasts or sides of his enemies with his irresistible lance. The skin of this fish is brown, spotted with browner speckles; it is smooth like that of an eel. The body is round, and altogether in the shape of an egg. It is worthy of remark, that the way in which this fish rids itself of the remains of its food after digestion has not yet been found out. It has a semicircular hole on the head, communicating with the roof of the mouth, like others of the same order; but it is clear that the purpose of it is for spouting water. Perhaps, like the leech, this creature perspires in a peculiar manner what others void in the form of excrements.



THE CAVALLO-MARINO, OR SEA-HORSE,

Is a small fish of a curious shape. The length seldom reaches twelve inches; the head bears some resemblance to that of a horse, whence originates its name. A long dorsal fin runs from the head to the tail, which is spirally curved. The ova of this genus are hatched

in a pouch, formed by an expansion of the skin, which in some is placed under the belly, and in others at the base of the tail, and which opens to allow the young to get out. They are often seen in cabinets and museums in a dried state, and the library of the East India House is possessed of a very good specimen of this curious creature. It belongs to the genus *Pipe-Fish*.

SHELL FISH.



THE OYSTER

HAS long been in favour with man for the delicacy of its food; the Lucrine lake used to be as much in renown among the Romans for the choicest kind of Oysters, as Cancalle Bay with the French, and the Colchester beds with us. It is a bivalve shell-fish, having the valves generally unequal. The hinge is without teeth, but furnished with a somewhat oval

cavity, and mostly with lateral transverse grooves. It grows sometimes to a very large size; in the East Indies they sometimes measure near two feet in diameter. Fixed to a rock from the moment it has been spawned, the Oyster is deprived of locomotion; and by this circumstance, as well as by the stony nature of its heavy shell, unites the confines of the animal kingdom to those of the mineral.

The principal breeding season of Oysters is in the months of April and May, when they cast their spawn, or *spats*, as the fishermen call them, upon rocks, stones, shells, or any other hard substance that happens to be near the place where they lie; and to these the spats immediately adhere. Till they obtain their film or crust, they are somewhat like the drop of a candle, but are of a greenish hue. The substances to which they adhere, of whatever nature, are called *cultch*. From the spawning time till about the end of July, the Oysters are said to be sick; but by the end of August they become perfectly recovered. During these months they are out of season, and are bad eating. The Oyster fishery of our principal coasts is regulated by a court of admiralty. In the month of May the fishermen are allowed to take the Oysters, in order to separate the spawn from the cultch, the latter of which is thrown in again, for the purpose of preserving the bed for the future. After this month it is felony to carry away the cultch, and otherwise punishable to take any Oyster, between whose shells, when closed, a shilling will rattle. The reason of the heavy penalty on destroying the cultch is, that when this is taken away, the ouse will increase, and muscles and cockles will breed on the bed; and, by gradually occupying all the places on which the spawn should be cast, will destroy the Oysters.

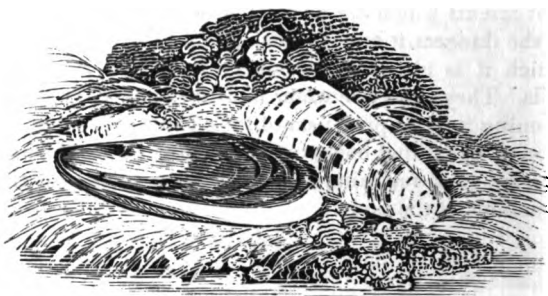
The Oyster has been represented, by many authors,

as an animal destitute not only of motion, but of every species of sensation. It is able, however, to perform movements which are perfectly consonant to its wants, to the dangers it apprehends, and to the enemies by which it is attacked. Oysters breathe by means of gills. They draw the water in at their mouth, a small opening in the upper part of their body, drive it down along a canal that constitutes the base of the gills, and so out again, retaining the air that is requisite for the functions of the body.

THE COMMON COCKLE.

FEW of our shell-fish are more common, in inlets and bays near the mouths of rivers, than these. In such situations they are usually found immersed at the depth of two or three inches in the sand, the place of each being marked by a small, circular, depressed spot. When they open their shells, the entrance into them is protected by a soft membrane, which entirely closes up the front, except in two places, at each of which there is a small, yellow, and fringed tube. It is by means of these tubes the animals receive and eject the water which conveys to their body the nutriment necessary for their support.

Cockles are in great request as food, and are caught for this purpose chiefly in the winter months. Their size is various, from five or six inches to half an inch in diameter. The shell is somewhat heart-shaped, with twenty-six longitudinal ribs, and transverse wrinkled, somewhat imbricated striæ; the colour pale, or whitish.



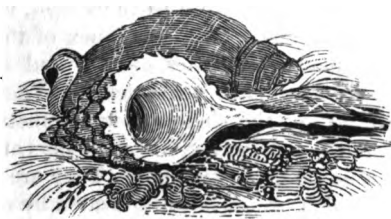
THE MUSCLE, AND ADMIRAL.

LIKE the oyster, the Muscle inhabits a bivalve shell, to which he adheres, as others of that species, by a strong cartilaginous tie. The shells of several muscles are beautiful. The muscle possesses the property of locomotion, which he performs with that member called the tongue of the muscle; by this tongue he gets hold of the rock, and by moving it along, is enabled to change his situation; he has also the property of emitting some kind of threads, which fixing at the sides of the shell upon the ground, answer the purpose of cables to keep the body of the fish steady.

The *Chama*, which is akin to the muscle, was used by the ancients to engrave various figures upon, from which circumstance those small bas-reliefs, so valued now, have obtained among the Italians and collectors the name of *Cameos*. The shells of some of these are decorated with red or yellow stripes, diverging from the hinge, and spreading to the edges. The *Giant Chama* has been found to weigh more than five hundred pounds, and the fish within large enough to furnish a meal for one hundred and twenty men.

THE ADMIRAL, the shell of a species of the *Volute*, is called so for its uncommon beauty. The inhabitant of it is a slug, or snail, as most of those of the univalve kind. If Nature have taken a delight in painting the wings of birds, the skins of quadrupeds, and the scales of fishes, she seems not to have been less pleased in pencilling the shells of these inhabitants of the deep. The variety, brightness, and versatility of the colouring, has been for a long space of time the deserving object of man's admiration; and in several places we cannot help being astonished at the richness which a cabinet of well selected shells presents to the eye.

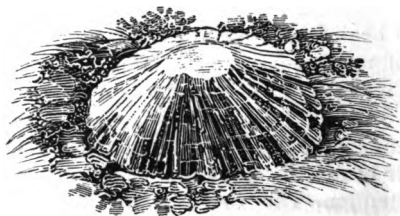
The manner of preparing the shells, and of bringing out their beautiful colours, is simple, and yet requires great attention. The crust must be rubbed gently with spirit of salt, and soon washed with clear water; this process will cleanse the shell, and display the wonderful brilliancy which was hidden under the first coat.



THE SNIPE, AND WILK.

THE Snipe, a shell-fish, so called on account of the curious length of a certain prominency coming out of the shell. It is surrounded with blunt prickles, and the colour of the whole is elegantly variegated.

THE WILK belongs to the family of the *Turbines*. It is the shell which the soldier crab generally adopts for his temporary abode, not having been furnished by Nature with those calcareous juices which produce a shell.

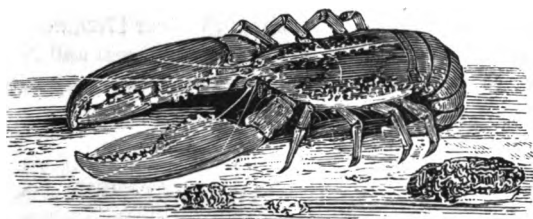


THE LIMPET

Is a univalve shell-fish, the shape of which is pyramidal; it adheres to the rock with such strength, that no human force can make it leave its hold, unless it is crushed by a strong blow. The apex of the shell is sometimes sharp, sometimes obtuse, and often surrounded with points and sharp prickles. When cleaned by proper means, the shell is found sometimes of a beautiful purple tint, sometimes emits rays of reflected light of an uncommon brilliancy. They are found on the rocks, which are incessantly beaten by the surges and breakers, on the sea-shores of almost every country in the world. The rays of variegated colours, which issue from their tops, are sometimes found of the most vivid hues; and the animal that lives under this magnificent roof, or versicolored canopy, is a kind of slug, uncomely to the eye, and insipid to the palate. It is not by any glutinous liquid, as it has been asserted, that this fish adheres so strongly to the rock; but by

the simple process of expelling the air from between its body and the ground, to which it affixes itself.

The variety which Providence has thrown into the sum of animated beings is so wonderfully great, that naturalists have reckoned two hundred and twenty-nine species of this genus of shell-fish; the difference arising merely out of the diversity of forms and colours.

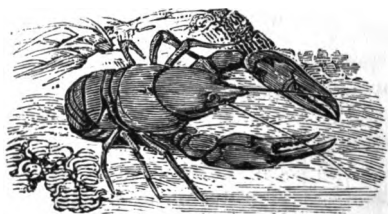


THE LOBSTER

Has a cylindric body, the antennæ long, and a broad tail. This fish, for it is one of the crustaceous kind, begins the class of water insects. His large claws enable him to seize on his prey, to fix himself at the small prominences of rocks in the sea, to resist the motion of the waves, and to fight his enemies. The Lobster makes a fulcrum with the point of his tail when he wants to spring off. His gait is awkward, as in all of the crab kind. Beside his claws, he has four small legs on each side, to assist him in his awkward movements. Under the tail the hen Lobster preserves her eggs till they are hatched. They are extremely prolific. Dr. Baxter says he counted twelve thousand four hundred and forty-four eggs under the tail of a female Lobster, besides those that remained in the

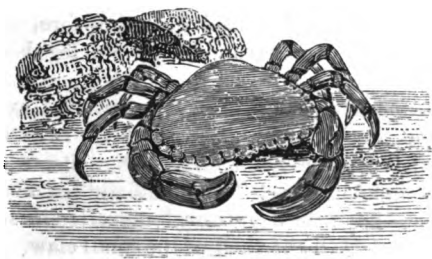
body unprotruded. They deposit these eggs in the sand, where they are soon hatched. Like the rest of their tribe, they are said to cast their shells annually. Previously to putting off their old shell, they appear sick, languid, and restless. They acquire an entirely new covering in a few days. At the same time that they cast their shell, they change also their stomach and intestines. The animal, while it is moulting, is said to feed upon its former stomach, which wastes by degrees, and is at length replaced by a new one.

Lobsters are caught in such abundance on the coast of Northumberland, that, about the year 1769, the sum paid for the annual exports from Nubiggin and Newton, by the sea, amounted to nearly fifteen hundred pounds.



THE CRAYFISH

Is the lobster of fresh water, and their presence is generally esteemed an evidence of the goodness of the water. They are reckoned a very strengthening food. They are caught in shallow brooks, hid under large stones, out of which they crawl backwards to seek for their prey, which consists of small insects; they are easily baited with liver or flesh, which they nibble most greedily.



THE CRAB

Is an amphibious animal ; living on land and in water. Crabs are of various sizes, some weighing several pounds, and others only a few grains, all of different species. They move not forward, but on one side, as it suits them best. They have a small tail closed on the body ; which is a considerable and essential difference between them and the lobsters, prawns, shrimps, and cray-fish.

The most remarkable circumstance, in the history of these animals, is the changing of their shells and broken claws. The former, as it is stated, is done once a year, and usually between Christmas and Easter. During the operation they retire among the cavities of rocks, and under great stones. Dr. Darwin says that a hard-shelled Crab always stands sentinel, to prevent the sea-insects from injuring the rest in their defenceless state ; and at these times he will advance boldly to meet the foe, and will with difficulty quit the field ; yet at other times he shows great timidity. Crabs are naturally quarrelsome amongst themselves, and frequently have serious contests, by means of those

formidable weapons, their great claws. With these they lay hold of their adversary's legs; and wherever they seize, it is not easy to make them forego their hold. The animal seized has, therefore, no other alternative but to leave part of the leg behind in token of victory.

An experiment was tried to prove the extremely tenacious disposition of the Crab. By irritating it, a fisherman made a Crab seize one of its own small claws with a large one. The animal did not distinguish that it was itself the aggressor, but exerted its strength, and soon cracked the shell of the small claw. Feeling itself wounded, it cast off the piece in the usual place, but continued to hold with the great claw for a long time afterward.

The *Violet Crab* of the Caribbee Islands is most singular for his habits; and their annual and regular caravans descending from the mountains, their natural abode, down to the sea-shores, in order to bring forth their young, excites our curiosity, but may be easily accounted for. This marine insect seems to have deserted, for some unknown causes, the oozy bottom of the deep, and preferred the verdant summit of grassy mountains: yet, unable to bring up his offspring on dry land, he comes back to what seems to have been his original destination, to the salt water; and, after having performed the duty imposed upon him by nature, returns by choice to those haunts where he perhaps finds himself more secure from the voracity of the sea tyrants. They form, in their stately procession, a body of fifty paces broad, wheeling along, three miles in depth. This battalion moves slowly, but with regularity and uniformity, either when they descend or ascend the hills. They abound in Jamaica, where they are accounted a great delicacy by the natives, and are common in the adjacent islands.



THE SOLDIER CRAB

Is a curious animal, and ought to be recorded here for the wonderful singularities of his habits. This animal is somewhat like a lobster divested of its shell; it is about four inches in length, has no shell on the hinder part, but is covered down to the tail with a rough skin; it is armed with strong hard nippers. This Crab has not been provided by nature with a shell, and is obliged to seek for one which can fit him, and has been deserted by its legitimate tenant; but as this covering does not proceed from himself, and does not grow of course proportionally with him, he is forced out of it by his increasing size, and finds himself under the necessity of looking out for a new one: it is curious to see him when in want of a new house, how he crawls from one empty shell to another, examining and trying his new habitation; and sometimes, when two competitors happen to eye the same premises, a great contest arises, and of course the strongest gets the manor. They are very common on several coasts of England, and we had a fine opportunity of examining them at Exmouth, in Devonshire,

where, among the rocks and pebbles on the shore, a great quantity of these curious fishes are to be found. They live upon small vegetables, and smaller insects, which they find in the puddles which the tide leaves behind.



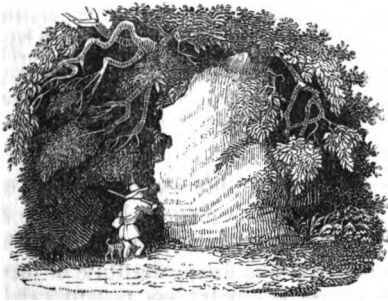
THE SHRIMP, AND PRAWN.

THE first is a well known small crustaceous fish of the lobster kind. It has long slender feelers, between which are two projecting laminae. It has three pair of legs and five fins, but no claws. All the sandy shores of Great Britain breed this insect; it is frequently found in harbours, and even in the ditches and ponds of salt marshes. Its flavour is very delicate.

THE PRAWN is not unlike the shrimp, but exceeds it considerably in size. Its colour, when boiled, is a most beautiful pink. The flesh is more esteemed than that of the shrimp.

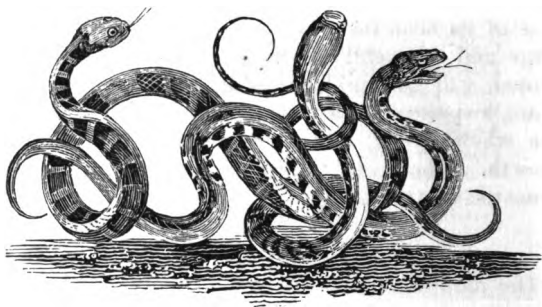
Prawns are chiefly found among sea-weed, and in the vicinity of rocks, at a little distance from the shore. They seldom enter the mouths of rivers. Their usual mode of swimming is on their backs; but when threatened with danger, they throw themselves on one side,

and spring backward to very considerable distances. They feed on all the smaller kinds of marine animals, which they seize and devour with great voracity. In their turn, they are the prey of numerous species of fish ; although the sharp and serrated horn in front of their head constitutes a powerful weapon of defence against the attacks of all the smaller kinds. At the side of its head there is frequently to be observed a large and apparently unnatural lump. This, if examined, will be found to contain, under the thoracic plate, a species of crustaceous animal, which occupies the whole cavity, and there feeds and perfects its growth. The same tumour or lump may be also observed on the shrimp.



BOOK IV.

SERPENTS.



SERPENTS.

Their flaming crests above the waves they show ;
Their bellies seem to burn the seas below ;
Their speckled tails advance to steer their course,
And on the sounding shore the flying billows force.
And now the strand, and now the plain they held ;
Their ardent eyes with bloody streaks were fill'd,
Their nimble tongues they brandish'd as they came,
And lick'd their hissing jaws that sputter'd flame.

DRYDEN'S VIRGIL.

THESE creatures constitute by themselves a distinct class of amphibia. The general character is that they breathe, like quadrupeds, through the mouth by means of lungs ; and are, like fishes, destitute of feet. They have neither fins like eels, nor feet like the lizards, yet they resemble the former by the pliancy of their annulous bodies, and the latter by the texture of their skins, which are often covered with scales, and by their pointed tails. In their motions they are like

worms; but they have lungs, which worms have not. All Serpents are formidable to man, and it is the form of this animal which the arch-fiend borrowed to seduce the woman. It is since an emblem of flattery and insinuation. Milton describes it most beautifully, when he says:

—————on his rear,
Circular base of rising folds, that tower'd
Fold above fold, surprising maze, his head
Crested aloft, and carbuncle his eyes.
With burnish'd neck of verdant gold, erect
Amidst his circling spires, that on the grass
Floated redundant; pleasing was his shape
And lovely Oft he bow'd
His turret crest, and sleek enamell'd neck,
Fawning, and lick'd the ground whereon she trod.

PARADISE LOST.

The mouth of the Serpent is generally very wide, but the eyes are comparatively small; they have no exterior nostrils or ears; and yet some species are endowed with a very sagacious scent, and with conspicuous auditory ducts. A peculiarity, which unites the Serpent tribe with some kinds of insects, is, that they undergo a sort of metamorphosis in changing their skins, which circumstance happens twice a year. The operation is performed in this way: the old skin parts near the head, and the creature creeps from it by an undulatory kind of motion, arrayed in a new skin of a more vivid beauty. The anatomical structure of the body is admirable, and it seems as if Nature had taken a special delight not only in framing, but also in colouring, this animal: yet what a lesson to man, if he consider, that all these exterior charms cover and disguise the mortal poison which this most dangerous creature contains in its teeth! This contrast we may observe nearly all through the whole creation. The bee produces the sweetest food by collecting honey, and yet possesses a venomous sting. The rose exhales the finest perfume, and its colour and beauty

proclaim it the queen of the flowers; and yet it is surrounded with thorns.

The ancients paid great honours to Serpents, and sometimes called them good genii; they abided by the sepulchres and burying places, and were addressed like the tutelary divinities of these places. We read in the fifth book of the *Æneis*, that, when the Trojan hero sacrificed to his father's ghost, a Serpent of this kind made his appearance.

————— and from the tomb began to glide
 His huge bulk on seven high volumes roll'd :
 Blue was his breadth of back, and streak'd with scaly gold.
 Thus riding on his curls he seem'd to pass
 A rolling fire along, and singe the grass ;
 More various colours through his body run,
 Than Iris when her bow imbibes the sun.
 Between the rising altars and around,
 The sacred monster shot along the ground ;
 With harmless play among the bowls he pass'd,
 And with his lolling tongue assay'd the taste :
 Thus fed with holy food, the wondrous guest
 Within the hollow tomb retired to rest.

DRYDEN.

It is impossible to guess at the origin of this curious, and, most likely, emblematic, superstition.

This animal was exalted to the honour of being an emblem of prudence, and even of eternity; and is often represented for the latter purpose, in Egyptian hieroglyphics, biting his tail, so as to form a circle. They are very numerous in Africa; and Lucan, in his *Pharsalia*, gives us a very extraordinary account of the different species, which he seems to have drawn partly from ancient Greek authors, partly from actual traditions. He says,

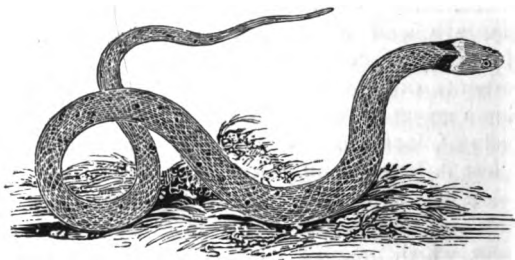
Why plagues like these infect the Libyan air;
 Why deaths unknown in various shapes appear;
 Why, fruitful to destroy, the cursed land
 Is temper'd thus by Nature's secret hand;
 Dark and obscure the hidden cause remains,
 And still deludes the vain inquirer's pains.

ROWE'S LUCAN.

Unable to find out the natural cause, which has peopled the African deserts with vermin both so numerous and so poisonous, the poet refers their origin to a well known fable, and thus leaves his reader pleased, but not enlightened.

Serpents differ very much in size. The boa of Surinam grows to the length of thirty-seven feet. In the isle of Java we are told of Serpents measuring fifty feet in length, and in the British Museum there is a skin of one thirty-two feet long. Pliny the Elder assures us, that he saw the skin of that enormous Serpent which opposed the passage of Regulus and his army on the banks of the Bagrada; it measured a hundred and twenty feet.

Many Indians, and some jugglers of the south of France, tame these creatures, and teach them to dance; an art very well known and highly esteemed among the ancients, who took it for a sort of sorcery. David mentions it in the fifty-eighth Psalm, where he says: "They are like the deaf Adder, that stoppeth her ear: which will not hearken to the voice of charmers, charming never so wisely."



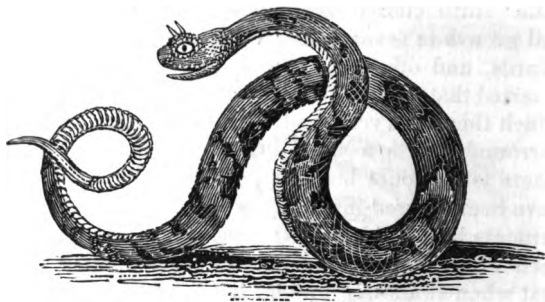
THE VIPER, OR ADDER,

Is a venomous animal, a species of serpent, that seldom exceeds the length of two or three feet ; it is of a dirty yellow colour with black spots, and the belly entirely black ; the head is nearly figured in the shape of a lozenge, and much thicker than the body. Unlike all others of the serpent kind, the Viper is viviparous, yet it is ascertained that the eggs are produced and hatched in the body of the mother.

The Reverend Mr. White of Selborne, in company with a friend, surprised a large female Viper, which, as she lay on the grass, basking in the sun, seemed very heavy and bloated. They killed and opened her, and found in the abdomen fifteen young ones, about the size of full grown earth-worms. This little fry issued into the world with the true Viper spirit about them, showing great alertness as soon as they were disengaged from the body of the parent. They twisted and wriggled about, set themselves up, and gaped very wide when touched with a stick ; exhibiting manifest tokens of menace and defiance, though as yet no fangs were to be discovered, even by the help of glasses. That young Vipers, for some time after their birth,

retreat, when suddenly alarmed, into the mouth of the female, in the same manner as the young of the opossum do into the abdominal pouch of their parent, seems a fact satisfactorily ascertained. Vipers attain their full growth in seven years; they feed on frogs, toads, lizards, and other animals of this kind; it is even asserted that they catch mice and small birds, a food of which they seem very fond. The teeth of the Viper are surrounded with a small bladder containing poison. There is no doubt but this poison, which appears to have been infused into the jaws of the Viper and other serpents by Providence, as a means of revenge upon their enemies, is so harmless to the animal himself, that when swallowed by him it only serves to accelerate his digestion; and, indeed, if the venom were hurtful to the Viper when he swallows it, how could he masticate frogs and mice without breaking the baneful bladder, and being injured by the poisonous liquor? The Viper is very patient of hunger, and may be kept more than six months without food. When in confinement, the Viper requires, or tastes, no food, and the sharpness of its poison decreases in proportion.

It is a native of many parts of this island, chiefly in the dry and chalky counties. The flesh of the Viper was formerly used for broth, and much esteemed in medicine, particularly to restore debilitated constitutions. It has, however, of late years, lost much of its ancient credit, and is very rarely prescribed by modern practitioners. The best remedy against the bite is to suck the wound, which may be done without danger, and after this to rub it with sweet oil, and poultice it with bread and milk.

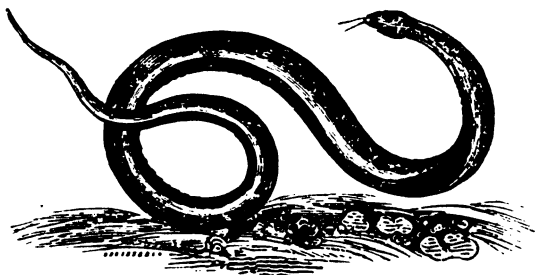


THE HORNED VIPER.

THIS particular kind of asp has a pointed and solid horn on each eyelid ; its body is of a pale yellowish or grayish colour, with distant subovate transverse brown spots ; and in length it is from one to two feet. It appears to be in some measure domesticated in Egypt, where it enters houses when the family are at table, picks up the crumbs from the floor, and retires without doing any injury to the company. This is very likely the snake which gave origin to the fable of *Æsculapius* having appeared under that form in a small island of the Tiber.

The *Hooded Serpent* is from three to eight feet long, with two long fangs hanging out of the upper jaw. It has a broad neck, and a mark of dark brown on the forehead ; which, when viewed frontwise, looks like a pair of spectacles ; but behind, like the head of a cat. The eyes are fierce and full of fire ; the head is small, and the nose flat, though covered with very large scales, of a yellowish ash colour ; the skin is white, and the large tumour on the neck is flat, and covered with

oblong smooth scales. The bite of this animal is said to be incurable, the patient dying in about an hour after the wound ; the whole frame being dissolved into one putrid mass of corruption. This serpent is supposed to be the Cockatrice of the Scriptures.

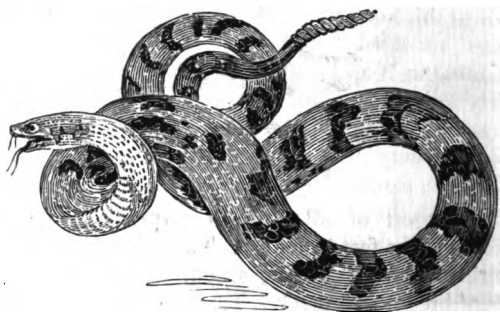


THE SNAKE

Is the largest of all English serpents, sometimes exceeding four feet in length. The colour of the body is variegated with yellow, green, white, and regular spots of brown and black. They seem to enjoy themselves when basking in the sun, at the foot of an old wall, as if consciously exposing the beauty of their versicolored scales to the rays of light. This animal is perfectly innoxious, although many reports have been circulated and believed to the contrary ; it feeds on frogs, worms, mice, and various kinds of insects, and passes the greater part of the winter in a state of torpidity. In the spring they re-appear, and at this season uniformly cast their skins. This is a process that they also seem to undergo in autumn. Mr. White says: " About the middle of September we found in a field, near a hedge, the slough of a large Snake, which seemed to have been newly cast. It appeared as if turned wrong side outward, and as if it had been

drawn off backward, like a stocking or a woman's glove. Not only the whole skin, but even the scales from the eyes were peeled off, and appeared in the slough like a pair of spectacles. The reptile, at the time of changing his coat, had entangled himself intricately in the grass and weeds, in order that the friction of the stalks and blades might promote this curious shifting of his exuvia."

The Snake of warmer countries is not so harmless as that of this island, as will be easily perceived by what will follow.



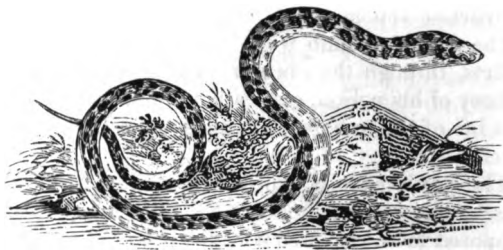
THE RATTLESNAKE

Is a native of the new world; it grows to five, and sometimes to six feet in length, and is nearly as thick as a man's leg; and is not unlike the viper, having a large head and small neck, and inflicting a very dangerous wound. Over each eye is a large pendulous scale, the use of which has not yet been ascertained; the body is scaly and hard, variegated with several different colours. The principal characteristic of this justly dreaded serpent is the rattle, a kind of instrument resembling the curb chain of a bridle, and affixed at the extremity of the tail; it is formed of thin, hard, hollow bones, linked together, and rattling on the least motion. When disturbed, the creature shakes this

rattle with a considerable noise and rapidity, striking terror into all other animals, which are afraid of the destructive venom which this serpent communicates to the wounded limb with his bite. The wound he inflicts, through the uncommon sharpness and rapid fluency of his poison, generally terminates the torment and life of the unhappy victim in the course of six or seven hours.

The Rattlesnake is known to devour several of the smaller species of animals; and, by many persons, is supposed to be endowed with the power of fascinating its prey, until they run into its jaws. Some colour is given to this account by M. Le Vaillant, who says that he saw, on the branch of a tree, a species of shrike, trembling as if in convulsions; and at the distance of nearly four feet, on another branch, he beheld a large species of Snake, that was lying with outstretched neck, and fiery eyes, gazing steadily at the poor animal. The agony of the bird was so great, that it was deprived of the power of moving away; and when one of the party killed the Snake, the shrike was found dead on the spot, and that entirely from fear; for on examination it appeared not to have received the slightest wound. The same traveller informs us, that a short time afterwards, he observed a small mouse, in similar agonizing convulsions, about two yards distant from a Snake, whose eyes were intently fixed upon it; and on frightening away the reptile, and taking up the mouse, it expired in his hand.

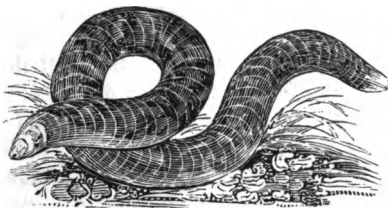
A Snake of this kind exhibited in London, at a menagery of foreign beasts, in the year 1810, wounded a carpenter's hand, who was repairing his cage, and seeking for his rule; the man suffered the most excruciating pain, and his life could not be saved, although medical assistance was immediately applied, and all efforts were made to prevent the dire effect of the poison. The proprietor was condemned to pay a deodand for the guilt of the serpent.



THE ASP,

WHOSE name is so intimately connected with the memory of Cleopatra, the queen of Egypt, and her spontaneous and melancholy death, is found in Africa ; its venom is the most subtle of that of all serpents ; it is incurable ; and if the wounded part is not instantly amputated, it speedily terminates the existence of the sufferer. In Deuteronomy, xxxii. 33, it is thus mentioned : " Their wine is the poison of dragons, and the cruel venom of Asps."

The Asp is from three to six feet in length ; it has two teeth longer than the rest, through which the venom flows. The body is covered with small round scales, and is of a greenish colour, bordered with brown ; its neck is capable of inflation. The jugglers of Egypt, by pressing the Asp on the nape of the neck with the finger, throw the animal into a kind of catalepsy, which renders it stiff and immoveable. The habit which this species has of raising itself up when approached induced the ancient Egyptians to believe that it guarded the fields where it was found ; and it is sculptured on the gates of their temples as an emblem of the protecting divinity of the world.



THE AMPHISBÆNA

Is a serpent of a harmless nature, being destitute of those fangs which prepare the venom in similar animals. Each extremity of his body is of an equal thickness, which has given occasion to the story that this animal has two heads. Lucan, in his poem, gives us a poetical description of this and several other serpents and snakes found in Libya, in which elegance of language, beauty of versification, and liveliness of fancy, have perhaps a greater claim than truth to the admiration of the reader.

With hissings fierce, dire Amphisbænas rear
Their double heads, and rouse the soldier's fear.
Eager he flies: more eager they pursue;
On every side their onset quick renew;
With equal swiftness face or shun the prey,
And follow fast when thought to run away.
Thus on the looms the busy shuttles glide,
Alternate fly, and shoot at either side.

The body of this serpent is black, variegated with white, its head has six large scales, in three rows; the tongue broad, rough above, forked, and free; its eyes small, and covered by a membrane; the anus surrounded by eight tubercles. It inhabits Ceylon.

THE BOA CONSTRICTOR.

THIS immense animal, the largest of all the serpent tribe, is frequently from thirty to forty feet in length, and of proportionate thickness; the ground colour of its skin is yellowish gray, on which is distributed, along the back, a series of large chain-like, reddish brown, and sometimes perfectly red, variegations, with other smaller and more irregular marks and spots. It is a native of Africa, India, the larger Indian islands, and South America, where it chiefly resides in the most retired situations in woods and marshes.

When Captain Stedman was on board of one of his boats, on the river Cottica, in Surinam, he was informed, by one of his slaves, that a large snake was lying among the brushwood on the beach, not far distant; and, after some persuasion, he was induced to land in order to shoot it. At the first shot, the ball, missing the head, went through the body: when the animal struck round, and with such astonishing force, as to cut away, with the facility of a scythe mowing grass, all the underwood around; and by flouncing his tail, caused the mud and dirt, in which he lay, to fly to a considerable distance, over the heads of the men that were with him. They started back some way, but the Snake was quiet again in a few minutes. Captain Stedman again fired, but with no better success than before; and the animal sent up such a cloud of dust and dirt, as he had never seen but in a whirlwind: this caused them once more suddenly to retreat. After some persuasions, he was induced, though much against his inclinations, being exceedingly weak from illness, to make a third attempt. Having, therefore, once more discovered the Snake, they discharged their pieces at once, and shot him through the head. The

negro brought a boat-rope to drag him to the canoe, which was lying on the bank of the river. This proved no easy undertaking, since the huge creature, notwithstanding his being mortally wounded, still continued to writhe about in such a manner as to render it dangerous for any person to approach him. The negro made a running noose on the rope, and, after some fruitless attempts, threw it over his head with much dexterity; and now all taking hold of the rope, they dragged him to the beach, and tied him to the stern of the canoe to take him in tow. Being, however, still alive, he there kept swimming like an eel. His length was more than twenty-two feet. When they came to one of their stations, they hauled him on shore, in order to skin him, and take out the oil. To effect this, one of the negroes, having climbed up a tree with the end of a rope, let it down over a strong forked branch, and the others hoisted up the Snake, and suspended him from the tree. This done, the former negro, with a sharp knife between his teeth, left the branch, and clung fast upon the monster, which was still writhing, and began his operations by ripping it up, and stripping down the skin as he descended. "Though I perceived (says the captain) that the animal was no longer able to do him any injury, I confess I could not, without emotion, see a man stark naked, black, and bloody, clinging with his arms and legs round the slimy and yet living monster." The negroes cut the animal in pieces, and would have eaten it, had they not been refused the use of the kettle to boil it in. The bite of this snake is not venomous; nor is the animal believed to bite at all, from any other impulse than that of anger.

We are assured by travellers, that these Snakes are sometimes found with the body of a stag in their gullet; while the horns, which they are unable to swallow, are seen sticking out of their mouths.

REPTILES.

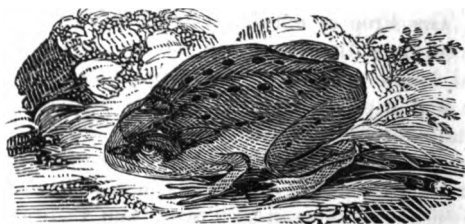


THE FROG.

WHEN this amphibious animal first issues from the egg, in which it is produced, it is merely a black, oval mass, with a slender tail. This tadpole, as it is called, is the embryo of the Frog, which, when it has attained a certain size, bursts its case, and appears with head and legs, leaving its tail with the rest of the exuviae of its former shape. This metamorphosis is one of the most curious in nature, and deserves our observation. The Frog, like other amphibious animals, needs not to breathe in order to put his blood into circulation, having a communication between the two ventricles of the heart. The common Frog lives during spring in ponds, brooks, muddy ditches, marshy grounds, and other watery places; in summer in corn fields and pasture land. Frogs have two bladders, one on each side of the mouth, which they fill with wind, and hence proceeds their voice. When they croak they put their heads out of the water, or else it could not be heard. The hinder legs of the Frog are much longer than the fore ones, to help them in those repeated and

extensive leaps which they make to avoid danger. The whole of the body bears a little resemblance to the human form, principally about the thighs and the toes. The Frog is extremely tenacious of life, and often survives the abscission of his own head for several hours. It is supposed that they spend the whole winter at the bottom of some stagnant water, in a state of torpidity.

There are several species of the Frog; they are all oviparous, and the eggs are gelatinous. The *Edible Frog* is the species used in France and Germany for food; it is considerably larger than the common kind, and though rare in England, it is very plentiful in France, Germany, and Italy. Its colour is olive green, marked with black patches on the back, and on its limbs with transverse bars of the same. From the tip of the nose, three distinct stripes of pale yellow extend to the extremity of the body; the middle one slightly depressed, and the lateral ones considerably elevated. The upper parts are of a pale whitish colour, tinged with green, and marked with irregular brown spots. These creatures are brought from the country, thirty or forty thousand at a time, to Vienna, and sold to the great dealers, who have conservatories for them, which are large holes, four or five feet deep, dug in the ground, the mouth covered with a board, and, in severe weather, with straw. In the year 1793, there were but three great dealers in Vienna, by whom those persons were supplied, who brought them to the markets ready for the cook. The Edible Frogs are caught in various ways; sometimes in the night, by means of nets, collecting together round the light of torches that are carried out for the purpose; and sometimes by hooks, baited with worms, insects, flesh, or even a bit of red cloth. They are exceedingly voracious, and seize every thing that moves before them.



THE TOAD,

WHOSE name seems to carry with itself something of an opprobrious meaning, is not unworthy the attention of the keen observer of nature: for though prejudice and false associations have affixed a stigma on certain species of animals, none of the works of our Creator are despicable; but all, the more minutely they are examined, are found to have the greater claim to our admiration. Somewhat like the frog in the body, he also resembles him in his habits; but the frog is nimble and leaps to a great distance, while the Toad crawls, and strives in vain to haste away. It is an error to suppose the Toad to be a noxious and venomous animal; he is as harmless as the frog, and, like some of the human kind, only labours under the stigma of undeserved calumny. Several stories have been related of his spitting poison, or knowing how to expel the venom he may have received from the spider or any other animals; but these fables have been long exploded, and have vanished like vapours before the enlightening torch of experiments. A curious and yet inexplicable phenomenon is, that Toads have been found alive in the centre of large blocks of stone, where they must have subsisted without food and

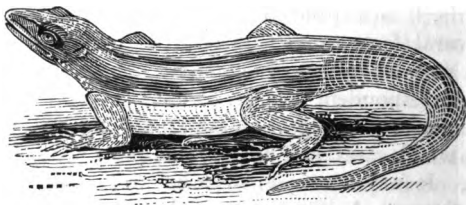
respiration for a number of years. A few facts we shall give for the amusement of the reader. In the year 1719, M. Hubert, professor of philosophy at Caen, was witness to a living Toad being taken from the solid trunk of an elm tree. It was lodged exactly in the centre, and filled the whole of the space that contained it. The tree was in every other respect firm and sound. Dr. Bradley saw a Toad taken from the trunk of a large oak. In the year 1733, a live Toad was discovered by M. Grayburg, in a hard and solid block of stone, which had been dug up in a quarry in Gothland. On being touched with a stick upon the head, he informs us it contracted its eyes, as if asleep; and, when the stick was moved, it gradually opened them. Its mouth had no aperture, but was closed round by a yellowish skin. On being pressed with the stick on the back, a small quantity of clear water issued from it behind, and it immediately died. A living Toad was found in a block of marble, at an old castle belonging to Lord Tankerville, twelve miles from Alnwick, in Northumberland.

With regard to the length of life in amphibious animals, it is impossible to state any thing decisive, as several facts prove that some of them have been gifted with astonishing longevity.

A correspondent of Mr. Pennant's supplied him with some curious particulars respecting a domestic Toad, which continued in the same place for *thirty-six* years. It frequented the steps before the hall door of a gentleman's house in Devonshire. By being constantly fed, it was rendered so tame as always to come out of its hole in an evening when a candle was brought, and to look up as if expecting to be carried into the house, where it was frequently fed with insects. An animal of this description being so much noticed and befriended, excited the curiosity of all who came to the house, and even females so far con-

quered the horrors instilled into them by their nurses, as generally to request to see it fed. It appeared most partial to flesh-maggots, which were kept for it in bran. It would follow them on the table, and, when within a proper distance, would fix its eyes and remain motionless for a little while, apparently to prepare for the stroke which was to follow, and which was instantaneous. It threw out its tongue to a great distance, and the insect, stuck by the glutinous matter to its tip, was swallowed by a motion quicker than the eye could follow. After having been kept more than thirty-six years, it was at length destroyed by a tame raven, which one day seeing it at the mouth of its hole, pulled it out, and so wounded it that it died.

According to La Cépède, and other naturalists, it is also impossible to determine how far an amphibious animal may increase in bulk. The immense skins of a lizard and of a Toad have long been seen in one of the churches at St. Omer, in Picardy, and have astonished the beholders.



THE LIZARD.

NATURE, in her provident wisdom, seems to have united, in an uninterrupted chain, the whole of the creation. The coral brings the animal kingdom near the vegetable; the bat calls on the quadrupeds and the birds with equal rights of affinity; and the Lizards

join the inhabitants of the liquid element with those of the land; whilst the flying-fish assimilates them to those of the air. Lizards may be divided into several species, and are nearly of all colours. The Green and Nimble Lizards are those chiefly known in Europe. They are amphibious, that is, they live equally happy on land or in water, although some particular species affect more the one than the other element. They are harmless, and have even received from popular, but we think unfounded, traditions, the honourable qualification of being friends to man.

The Green Lizard, and the Nimble Lizard, are considered by Dr. Shaw as varieties of the same species. The latter, however, sometimes attains a considerable size, measuring two feet or upwards in length, although its general size is not more than fifteen inches. Its colours are more brilliant and beautiful than those of any other European Lizard: they exhibit a rich and varied mixture of darker and lighter green, interspersed with specks and marks of yellow, brown, blackish, and sometimes even red. The head is covered with large angular scales; and the rest of the upper parts with very small ones. The tail is generally much longer than the body. Beneath the throat there is a kind of collar, formed by scales of much darker colour than the rest of the body.

This animal seems occasionally to lay aside its natural gentleness of disposition, but no further than for the purpose of obtaining food. Mr. Edwards once surprised a nimble Lizard in the act of fighting with a small bird, as she sat on her nest in a vine against a wall, with newly hatched young. He supposed that the Lizard would have made a prey of the latter, could he have driven the old bird from her nest. He watched the contest for some time; but, on his near approach, the Lizard dropped to the ground, and the bird flew off.



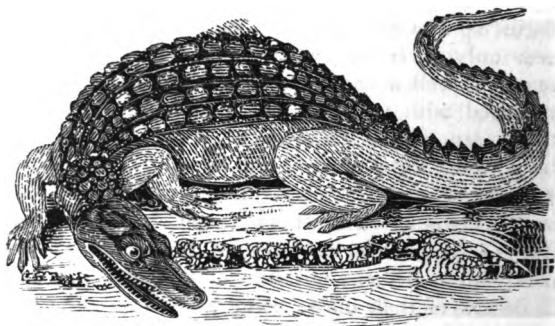
THE CHAMELEON.

A lizard's body, lean and long,
A fish's head, a serpent's tongue;
Its foot with triple claw disjoin'd;
And what a length of tail behind!
How slow its pace! and then its hue!

MERRICK.

THE Chameleon is a small animal of the lizard genus, about ten inches long, and its tail nearly the same length. Its body is shagreened with small scaly granules, compressed; and the back edged; the tail round, long, and tapering. Its feet have each five toes, which are situated three one way and two another, in order to enable it to lay firmly hold of the branches; but wherever it happens that these are too large for the animal to grasp with its feet, it coils round them its long, prehensile tail, and fixes its claws strongly into the bark. When walking on the ground, it steps forward in an extremely cautious manner, seeming never to lift one foot until it is well assured of the firmness of the rest. From these precautions, its motions have a ridiculous appearance of gravity, when contrasted with the smallness of its size,

and the activity that might be expected from an animal so nearly allied to some of the most active in the creation. Though the Chameleon is extremely ugly and disgusting in appearance, it is perfectly harmless. It feeds only on insects, for which the structure of its tongue is well adapted, being long and missile, and furnished with a dilated, glutinous, and somewhat tubular tip. By means of this it seizes on insects with the greatest ease, darting it out and immediately retracting it, with the prey thus secured, which it swallows whole. The notion that Chameleons were able to feed on air is incorrect; it seems to have arisen merely from the circumstance of these animals, like all others of their class, being able to subsist for a great length of time without food. The eyes of the Chameleon have a singular property of looking at the same instant in different directions; one of them may be seen to move when the other is at rest, or one will be directed forward, whilst the other is attending to some object behind; or in a similar manner upward and downward. It has the power of inflating its body to double its ordinary size, and at these times it is transparent. It can undoubtedly take the colour of any object it passes over; but in what way this is accomplished, naturalists are unable to explain. A Chameleon was exhibited in London a few years ago, and, to show this extraordinary property, several pieces of carpet, of various colours, were laid on the table; and, as the animal walked over each, it changed its colour to that of the ground: it was observed to make a halt for a second when it got upon a new colour, before it underwent the change. This animal is a native of India, the Indian islands, Asia, and Africa; and it is also found in the Mexican dominions.



THE CROCODILE, AND ALLIGATOR,

ARE the largest of the lizard genus; and, though capable of living on land, as well as in the water, link themselves with fish by being oviparous; while the whale, that is confined to the regions of the deep, and cannot live out of them, bears resemblance to the quadrupeds by bringing forth her young alive. Both the Crocodile, whose haunts are the reedy banks of the Nile, the Niger in Africa, and the Ganges in Asia; and the Alligator, who is confined to the middle parts of America; appear to be of a gregarious propensity, as they are sometimes found lying as close together as a raft of timber. The body of both is rough, being covered with hard scales. The Crocodile is in length eighteen, twenty, and sometimes thirty feet, the tail being about five feet and a half. The feet are webbed; the hinder having four toes, the fore feet five, three of which have strong nails. The eye is very small in proportion to the whole bulk of the creature, and about one inch long in its wider diameter. The nose

is in the middle of the upper jaw, and perfectly round and flat; the jaws seem to be locked one within another, by means of the sharp teeth, of which the African species has forty above, and thirty-eight below; the Asiatic, twenty more in each jaw. The distance between the two jaws is large enough to admit the body of a man. From the general account of this tremendous animal, his destructive powers may be easily conjectured; and whether attacking or attacked, he is nearly invincible. By the reason of his legs being short, his walk on the ground is very slow; and from the structure of his back-bone, he turns with difficulty; but he swims very fast. The female lays eggs in the sand, to the number of three hundred, which often become the prey of the vulture or other birds, providentially appointed to lessen the multiplication of so dangerous a creature. They are not only sought eagerly by these, but also by the natives, being a very luscious food for them.

All the rivers of Guinea are pestered with vast shoals of Crocodiles. On hot days, great numbers of these animals lie basking on the banks of rivers, and as soon as they observe any one approach, they plunge into the water. M. Adanson says that, in the river Senegal, on the western coast of Africa, he has sometimes seen more than two hundred swimming together, with their heads just above water, resembling a great number of trunks of trees floating down the river. In the neighbourhood of Thebes, in Egypt, the small boat, in which Sonnini sailed up the river, was often surrounded by Crocodiles on a level with the surface. They observed the boat pass by them, but with apparent indifference.

The French soldiers in Egypt are stated to have set the Crocodiles at defiance. They were not once attacked by them, nor did they ever meet with any at a distance from the river. It is probable that these

animals find, in the Nile itself, a sufficient quantity of food, which is not difficult to be procured, and which, as in all other cold-blooded animals, they digest very slowly.

The habits of the Alligator are the same with those of the Crocodile. The principal distinction is that the former has its head and part of the neck more smooth than the latter, and the snout is considerably more wide and flat, as well as more rounded at the extremity. The largest of these animals do not exceed eighteen feet. Alligators are natives of the warmer parts of America, and are the dread of all living animals. Their voracity is so great, that they do not spare even mankind. A short time before M. Navarrete was at the Manillas, he was told that, as a young woman was washing her feet in one of the rivers, an Alligator seized and carried her off. Her husband, to whom she had been but just married, hearing her screams, threw himself headlong into the water, and, with a dagger in his hand, pursued the robber. He overtook and fought the animal with such success, as to recover his wife; but, unfortunately for her brave rescuer, she died before she could be brought to the shore.

The voice of the Alligator is loud and dreadful. They have an unpleasant and powerful musky scent. M. Pagés says, that near one of the rivers in America, where they were numerous, their effluvia was so strong as to impregnate his provisions, and even to give them the nauseous taste of rotten musk. This effluvia proceeds chiefly from four glands, two of which are situated in the groin, near each thigh, and the other two at the breast, under each fore leg. Dampier informs us that, when his men killed an Alligator, they generally took out these glands, and, after having dried them, wore them in their hats by way of perfume.

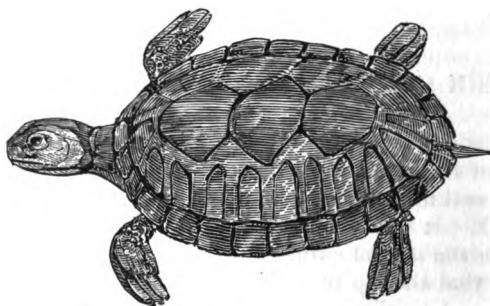


THE COMMON, OR GREEK, TORTOISE

Is a distinct genus of animals, of the class amphibious, and of the reptile order. They are found of various sizes and dimensions, from a few inches to five feet in length. It has a small head, four feet, and a tail, which the animal gathers within the shell in such a way, that the top part and the under one meet together, and so closely that the greatest strength cannot separate them. The eye is destitute of an upper lid, the under one serving to defend that organ. The upper shell, made up of thirty-seven compartments, is convex, and so strong, that a loaded cart can pass over it without injuring the creature inside. In winter they retire to some cavern under ground, which they line with moss, grass, and leaves, and where they pass in safe and solitary retirement the whole of this season. The Tortoise is very tenacious of life, and one has been known to live, or at least to show signs of life, for the space of four-and-twenty days after the head had been severed from the body. It is no less remarkable for its longevity, as it is ascertained that one lived upwards of one hundred and twenty years in the garden of Lambeth Palace.

This animal is found in most of the countries near the Mediterranean Sea, in Corsica, Sardinia, and some of the islands of the Archipelago, as well as in many parts of the north of Africa.

The Tortoise-shell which is produced by this animal, as well as by the hawk's-bill turtle, is employed in several articles of useful and ornamental utensils, and when of a good colour, sells at a considerable price.



THE SEA TORTOISE, OR GREEN TURTLE,

Is considered a very delicate food, especially the green and the loggerhead. Some of them are so large that they weigh from four hundred to eight hundred pounds. Dampier mentions an immensely large one that was caught at Port Royal, in the Bay of Campeachy. It was nearly six feet in width and four feet in thickness. A son of Captain Roch, a boy of about ten years old, went in the shell, as in a boat, from the shore to his father's ship, lying about a quarter of a mile distant.

Turtle generally ascend from the sea, and crawl on the beach, either for food, or for laying their eggs

(which are as big sometimes as those of a common hen), to the number of fifty or sixty at a time. The young ones, as soon as they are hatched, crawl down to their natural element. They are caught, when sleeping on land, by turning them on their backs; for as they cannot turn themselves over again, all means of escape is denied them. The lean of the Green Turtle tastes and looks like veal, without any fishy flavour. The fat is as green as grass, and very sweet. Their introduction, as an article of luxury, into England, appears to have taken place within the last eighty or ninety years. They are common in Jamaica, and in most of the islands of the East and West Indies. Green Turtles are sometimes caught on the European shores, driven thither by stress of weather. In the year 1752, one, six feet long, and four feet broad, weighing between eight and nine hundred pounds, was caught in the harbour of Dieppe, after a storm. In 1754, a still larger one, upwards of eight feet long, was caught near Antioche, and was carried to the abbey of Long-veau, near Vannes, in Brittany; and, in the year 1810, a small one was caught amongst the submarine rocks, near Christchurch, in Hampshire.



BOOK V.

INSECTS.

Observe the Insect race, ordain'd to keep
The lazy sabbath of a half-year's sleep!
Entomb'd beneath the filmy web they lie,
And wait the influence of a kinder sky;
When vernal sunbeams pierce their dark retreat,
The heaving tomb distends with vital heat—
The full-form'd brood, impatient of their cell,
Start from their trance, and burst their silken shell!
Trembling awhile they stand, and scarcely dare
To launch at once upon the untried air—
At length assured, they catch the favouring gale,
And leave their sordid spoils, and high in ether sail!
Lo! the bright train their radiant wings unfold,
With silver fringed, and freckled o'er with gold;
On the gay bosom of some fragrant flower,
They, idly fluttering, live their little hour;
Their life all pleasure, and their task all play,
All spring their age, and sunshine all their day!

BARBAULD.

INSECTS are so denominated from the greater number of them having a separation in the middle of their bodies, by which they are, as it were, cut into two parts; they have, in general, six or more legs, which are, for the most part, nearly of equal length and thickness. Sometimes, however (as in the mole-cricket), the fore legs are very thick and strong, for burrowing into the ground: sometimes the hind thighs are long and thick, for leaping; or flattened, fringed with hairs, and situated nearly in a horizontal position, to serve as oars for swimming.

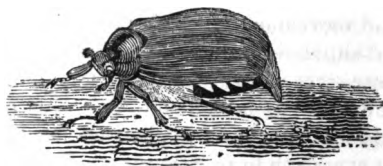
Most of the insect tribes are furnished with wings. Some, as the beetles, have two membranous wings, covered and protected by hard and crustaceous cases, called elytra; some, as the wasps and bees, have four wings without elytra; others, as the common house-

flies, have two wings; and others, as the spiders, are entirely destitute of these members.

They are furnished with antennæ, which are usually jointed, and moveable organs, formed of a horny substance, and situated on the front and upper part of the head. These serve as instruments of touch, or of some sense which is to us unknown. The eyes of insects are formed of a transparent substance, so hard as to require no coverings to protect them. Their mouth is generally situated somewhat beneath the front part of the head, and in a few of the tribes is below the breast; and the jaws are transverse, and move in lateral directions. These are furnished with feelers, and other organs, of various arrangement and structure, which constitute the foundation of arrangement in some of the systems of entomology. All insects breathe, not through their mouths, but through pores or holes along the sides of their bodies; or, as in the crabs and lobsters, by means of gills. The skin of insects is, in general, of hard or bony consistence, divided into plates or joints which admit of some degree of motion, and is generally clad with very short hairs.

Nearly all insects go through certain great changes at different periods of their existence. From the egg is hatched the larva, grub, or caterpillar, which is destitute of wings; this afterwards changes to a pupa, or chrysalis, wholly covered with a hard shell, or strong skin, from which the perfect or winged insect bursts forth. Spiders, and some other wingless insects, issue from the egg nearly in a perfect state.





THE COCK-CHAFER.

THE eggs of the Cock-chaffer are deposited in the ground by the parent insect, whose fore legs are very short, and are well calculated for burrowing. From each of these eggs proceeds, after a short time, a whitish worm with six legs, a red head, and strong claws, and about an inch and a half long, which is destined to live in the earth under that form for four years, and there to undergo various changes of its skin, until it assumes its chrysalid form. It subsists, during its subterraneous abode, on the roots of trees and plants, committing ravages often of the most deplorable nature. These creatures, sometimes in immense numbers, work between the turf and the soil in the richest meadows, devouring the roots of the grass to such a degree, that the turf rises, and will roll up with almost as much ease as if it had been cut with a turving knife: and underneath, the soil appears turned into a soft mould for more than an inch in depth, like the bed of a garden. In this the grubs lie, on their backs, in a curved position, the head and tail uppermost, and the rest of the body buried in the mould. Mr. Arderon, of Norwich, mentions his having seen a whole field of fine flourishing grass become, in a few weeks, withered, dry, and as brittle as hay, by these grubs devouring the roots.

The larvæ, as I have said, continue four years in the ground ; and when, at the end of this period, they are about to undergo their change, they dig deep into the earth, sometimes five or six feet, and there spin a smooth case, in which they change into a pupa or chrysalis.

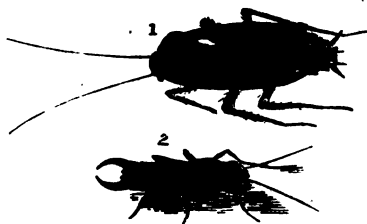
They remain under this form all the winter, until the month of February, when they become perfect beetles, but with their bodies quite soft and white. In May the parts are hardened, and they then come forth out of the earth. This accounts for our often finding the perfect insects in the ground.

In the year 1688, the Cock-chafers appeared on the hedges and trees of the south-west coast of the county of Galway, in clusters of thousands, clinging to each others' backs, in the manner of bees when they swarm. During the day they continued quiet, but towards sunset the whole were in motion ; and the humming noise of their wings sounded like distant drums. Their numbers were so great, that, for the space of two or three square miles, they entirely darkened the air. Persons travellin on the roads, or who were abroad in the fields, found it difficult to make their way home, as the insects were continually beating against their faces, and occasioned great pain. In a very short time the leaves of all the trees, for several miles round, were destroyed, leaving the whole country, though it was near midsummer, as naked and desolate as it would have been in the middle of winter. The noise which these enormous swarms made, in seizing and devouring the leaves, was so loud as to have been compared to the distant sawing of timber. Swine and poultry destroyed them in vast numbers. These waited under the trees for the clusters dropping, and devoured such swarms as to become fat upon them alone. Even the native Irish, from the insects having eaten up the

whole produce of the ground, adopted a mode of cooking them, and used them as food.

Towards the end of summer they disappeared so suddenly, that, in a few days, there was not a single one left.

Rooks and gulls devour immense numbers of the grubs of this destructive insect, by which they render a most essential service to mankind; and great care ought to be taken to cherish and protect them. The chief employment of rooks, during nearly three months in the spring of the year, is to search for insects of this sort as food; and the havoc that a numerous flock makes among them must be very great.



THE BEETLE AND EARWIG.

1. THE BEETLE.

Or where the Beetle winds
His small but sullen horn,
Whose numbers, stealing through thy darkening vale,
May not unseemly with its stillness suit.

COLLINS.

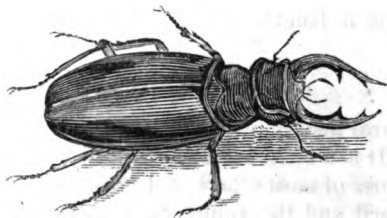
SCARABÆUS is the generic name for the whole tribe of beetles. The characters of the genus are, two transparent wings covered with cases; they are produced from eggs, in the shape of grubs, then change into

chrysalises, and lastly arrive at the form of Beetle. There are many different species in the old and new continent, from the size of a pin's head to upwards of four inches in length.

2. THE EARWIG.

THE natural history of this insect has been but little known. It is a circumstance extremely singular, that, unlike those of most others of the insect tribe, the eggs are hatched and the young Earwigs are fostered by the parent. At the beginning of the month of June, M. de Geer found under a stone a female Earwig, accompanied by many little insects, which evidently appeared to be her young. They continued close to her, and often placed themselves under her belly, as chickens do under a hen.

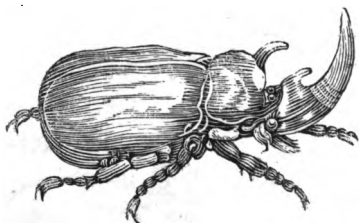
In the common appearance, the animal is very nimble, and perfectly harmless, notwithstanding the charge which has been brought against it of entering the human ear, and depositing its eggs there, which of course would cause intolerable pain when they were hatched, and the young began to gnaw the inside of the ear; but we are happy to find that this is a mere supposition, and that the Earwig does not intrude itself into a place, the natural construction of which would certainly prevent such intrusion; or that, if such event ever happened, the insect entered there for no other purpose than to shelter itself from danger. The Earwig possesses wings which are both large and elegant, and which, when extended, cover nearly the whole insect. The elytra, or wing-cases, are short, and do not extend along the whole body, but only over the breast. The wings are concealed beneath these, and are somewhat of an oval shape. There is great elegance in the manner in which the insect folds them beneath its elytra.



THE STAG BEETLE

Is the largest, and most singular in shape, of any in this country. It is known by two horns, projecting from its head, and resembling those of a stag. These horns are furnished with teeth, from their root to their point. The wing cases have neither streaks nor spots. The whole insect is of a deep brown. It is sometimes found in oaks, near London; where it is much smaller than those of the same species found in woody countries. As their horns pinch severely, they are carefully to be avoided, notwithstanding they are the greatest beauty they possess; having sometimes the appearance of coral.

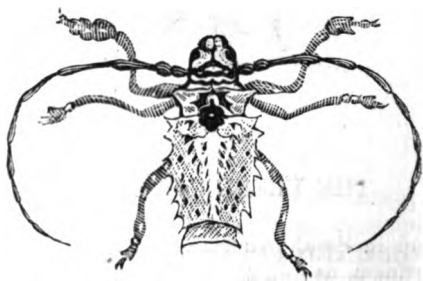
They feed on the oozings from oaks, on which the females deposit their eggs. The larvæ, or grubs, lodge under the bark, or in the hollow of old trees; which they bite, and reduce to fine powder. Here they transform themselves into the chrysalis. These insects are mostly found in Kent and Sussex. In Germany there is a popular but idle notion, that these insects are sometimes known, by means of their jaws, to carry burning coals into the houses; and that, in consequence of this mischievous propensity, dreadful fires have been occasioned.



THE ELEPHANT BEETLE

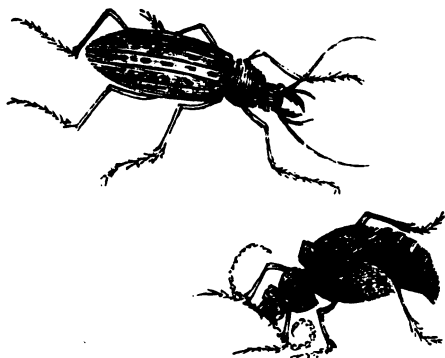
Is found in South America, particularly in Guiana and Surinam, as well as near the river Oroonoko. It is the largest of this kind hitherto known. It is of a black colour; and the whole body is covered with a very hard shell, fully as thick and as strong as that of a small crab. Its length, from the hinder part to the eyes, is almost four inches; and from the same part to the end of the proboscis, or trunk, four inches and three quarters. The transverse diameter of the body is two inches and a quarter; and the breadth of each case for the wings, upwards of an inch. The antennæ, or feelers, are quite horny; for which reason the proboscis, or trunk, is moveable at its insertion into the head, and seems to supply the place of feelers. The horns are about an inch long, and terminate in points. The proboscis is an inch and a quarter long, and turns upwards, making a crooked line, terminating in two horns, each of which is near a quarter of an inch long; but they are not perforated at the end, like the proboscis of other insects. Above the head is a pro-

minence, or small horn, which, if the rest of the trunk were away, would cause this part to resemble the horn of a rhinoceros. There is, indeed, a beetle named after that animal, whose lower horn resembles this. The feet are all forked.



THE LARGER CAPRICORN GREEN BEETLE

Is a very beautiful insect, of a glossy, bluish green colour, with a cast of shining gold. The body is blue on the upper part; and the wings under the case black. The legs are of the same bluish green colour, only somewhat paler; and the breast is pointed at each extremity. Between these points are three little tubercles near the wings, and three smaller towards the head. The cases of the wings are oblong, and somewhat in the shape of a lance; with three ribs a little raised and running longways. The feelers are nearly as long as the body, composed of many small joints, which grow smaller near the ends. It is sometimes found among old willow trees, and has a kind of musky smell.



THE GRAINED BULL-HEAD, AND SPANISH FLY, OR CANTHARIDES.

THE first named species is not only one of the largest, but the most beautiful and brilliant, this country produces. The head, breast, and wing-cases are of a coppery green. The latter have three longitudinal rows of oblong raised spots. All the under part of the insect is black. Having no wings beneath the cases, Nature has providentially supplied it with such legs as enable it to run with amazing swiftness. This insect is frequently found in damp places, under stones and heaps of decayed plants in gardens. The colour varies; for it is frequently of a beautiful purple.

The larvæ live under ground, or in decayed wood, where they remain until metamorphosed to their perfect state, when they proceed to devour the larvæ of other insects, and all weaker animals they can conquer.

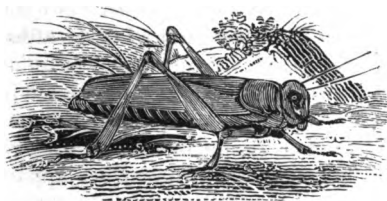
They are frequently known by the name of the Ground Beetle. Some are found as early as the

beginning of March, in paths, and near old walls, where the sun warms the earth with his vivifying beams. Many of the larger species have been found between the decayed bark and wood of willow trees.

THE SPANISH FLY.

THERE are several species of this insect, differing in size, figure, and colour. But all are apparelled, by Nature, with great lustre. Green, azure, and gold colours blend their hues to embellish them. They are mostly natives of the southern parts of Europe. The species used medicinally is of a shining green colour, mixed with azure, and very prolific. These insects are sometimes observed to fly in swarms. A disagreeable smell, like that of mice, indicates their approach. By this scent they are found by the gatherers, who collect them for apothecaries. When dried, fifty of them scarcely weigh a dram. Shrubs, and particularly the leaves of ash trees, are their food. So corrosive are the odorous particles emitted by this insect, that great caution is required in taking them; many having suffered greatly, from gathering a quantity of them with their bare hands in the heat of the sun; and some have been oppressed with sleep by sitting under trees on which swarms of *Cantharides* have settled. The larvæ are produced from the ground, where the eggs are always deposited. These insects, reduced to powder, are exceedingly efficacious as blisters.

The larvæ of the insects of this genus, inhabiting our country, greatly resemble their perfect form; for they are of the same colour, are as large, and as slow in their motions. They are generally found buried deep in the earth, where they metamorphose themselves into perfect *Cantharides*.

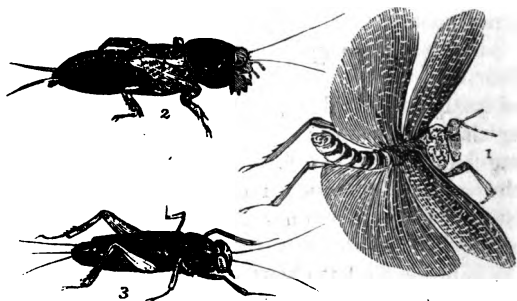


THE GRASSHOPPER

Is of a gay green colour, the head somewhat resembling that of a horse; the corselet is armed with a strong buckler; it has four wings and six legs, the hinder ones being much longer than the other, to assist the insect in leaping. As naturalists have found three kinds of stomach in the Grasshopper, they are led to suppose that it chews the cud like ruminating quadrupeds. They are oviparous, and propagate to an immense number in the space of the summer season. This well known insect feeds generally on grass; and utters abroad a chirping note, which is supposed to be caused by the fluttering of the wings; if handled roughly, the Grasshopper bites very sharply.

Toward the end of autumn the female deposits her eggs in a hole, which she makes in the earth for this purpose, by means of an instrument at her tail, with which she is furnished. These eggs sometimes amount to near a hundred and fifty; they are about the size of aniseeds, white, oval, and of a horny substance. The female, having thus performed her duty, soon languishes and dies. In the beginning of May following, a small white maggot issues out of each egg. The creature passes about twenty days under this humble and creeping form; but soon after, having

assumed the shape of larva, whilst all the rudiments of the future Grasshopper are concealed under a thin outward skin, it retires under a thistle or a thorn bush, most likely to be more secure; and there, after a variety of laborious exertions, writhings, and palpitations, the temporary covering divides, and the insect jumps out of her *exuviae*, which she leaves under the friendly plant that gave her shelter in time of need.



THE LOCUST, MOLE CRICKET, AND CRICKET.

1. THE LOCUST.

THE Bible, which was written in a country where the Locust made a distinguished figure among natural productions, has given us several very striking images of this animal's numbers and rapacity. It compares an army to a swarm of locusts: it describes them as rising out of the earth, where they are produced; as pursuing a settled march to destroy the fruits of the earth, and as the frequent instruments of divine indignation.

When the Locusts take the field, they have a leader at their head, whose flight they observe, and pay a strict

attention to all his motions. They appear at a distance like a black cloud, which, as it approaches, gathers upon the horizon, and almost hides the light of the day. It often happens that the husbandman sees this imminent calamity pass away without doing him any mischief; and the whole swarm proceed onward, to settle upon the labours of some less fortunate country. But wretched is the district upon which they fix; they ravage the meadow and the corn land; strip the trees of their leaves, and the gardens of their beauty; the visitation of a few minutes destroys the expectations of a year; and a famine but too frequently ensues. In their native tropical climates they are not so dreadful as in the more southern parts of Europe. There, though the plain and the forest be stripped of their verdure, the power of vegetation is so great, that an interval of three or four days repairs the calamity: but our verdure is the produce of a season; and we must wait till the ensuing spring repairs the damage. Besides, in their long flights to this part of the world, they are famished by the tediousness of their journey, and are therefore more voracious wherever they happen to settle. But it is not by what they devour that they do so much damage, as by what they destroy. Their very bite is thought to contaminate the plant, and to prevent its future vegetation. To use the expression of the husbandman, they burn whatever they touch; and leave the marks of their devastation for two or three years ensuing. And if so noxious while living, they are still more so when dead; for wherever they fall, they infect the air in such a manner, that the smell is unsupportable.

In the year 1690, a cloud of Locusts was seen to enter Russia in three different places; and thence to spread themselves over Poland and Lithuania, in such astonishing multitudes, that the air was darkened, and the earth covered with their numbers. In some places

they were seen lying dead, heaped upon each other to the depth of four feet; in others, they covered the surface like a black cloth: the trees bent beneath their weight, and the damage which the country sustained exceeded computation. In Barbary their numbers are formidable, and their visits frequent. In the year 1724, Dr. Shaw was a witness of their devastations in that country. Their first appearance was about the latter end of March, when the wind had been southerly for some time. In the beginning of April, their numbers were so much increased, that, in the heat of the day, they formed themselves into large swarms, which appeared like clouds, and darkened the sun. In the middle of May they began to disappear, retiring into the plains to deposit their eggs. In the next month, being June, the young brood began to make their appearance, forming many compact bodies of several hundred yards square; which afterwards marching forward, climbed the trees, walls, and houses, eating every thing that was green in their way.

——— To their general's voice they soon obey'd
 Innumerable. As when the potent rod
 Of Amram's son, in Egypt's evil day,
 Waved round the coast, upcall'd a pitchy cloud
 Of Locusts, warping on the eastern wind,
 That o'er the realms of impious Pharaoh hung
 Like night, and darken'd all the land of Nile;
 So numberless were those bad angels seen,
 Hovering on wings, under the cope of Hell,
 'Twixt upper, nether, and surrounding fires.

MILTON.

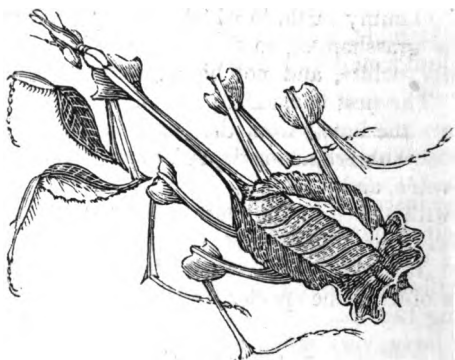
2. THE MOLE CRICKET

Is the largest of the genus, and is very particularly formed; the two fore feet, which are placed very near the head, have the shape of wheels, and, resembling those of the mole, are contrived to help the insect in burrowing under ground. It is very noxious to gar-

deners, as it attacks the roots of young plants, and causes them soon to rot and die. The female forms a nest of clammy earth, in which she deposits her eggs, like the grasshopper, to the number of one hundred and fifty, white, and not bigger than a small pin's head. The nest is carefully closed up on every side, to secure the brood from the incursions of the grubs and other subterraneous depredators. It has no particular voice, and is, as all other insects, composed of a head with two long antennæ, a hard corselet, and a belly composed of several rings moving upon each other. It undergoes the same changes as do all the insects of the same species.

3. THE CRICKET.

THERE are two distinct kinds of these insects, the field and the domestic crickets; the latter generally abide in houses, selecting for their place of retirement the chimneys or backs of ovens; live upon any thing that comes in their way, flour, bread, meat, and especially sugar, of which they seem to be particularly fond. The chirping noise, which they make nearly without intermission, is produced by a fine membrane at the base of the wings. They are generally of a brown rusty colour, and the organ of vision appears in them to be very weak and imperfect, as they find their way much better in the dark than when dazzled by the sudden light of a candle. The field cricket has the same form, and is of the same species with the house cricket, except that it is of a black colour, with a fine gloss. Its noise is heard at a great distance, and is so similar to that of the grasshopper, that it is difficult to distinguish the one from the other.



THE WALKING LEAF.

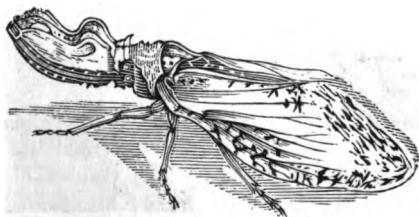
THIS insect is remarkably shaped. The head is joined to the body by a neck longer than the body itself. It has two polished eyes, and two short feelers. The breast is long, narrow, and margined. The wing-cases, which cover two-thirds of the body, are veined and reticulated, or netted. The wings are veined and transparent. The hinder legs are very long, the next shorter; and the foremost pair of thighs are terminated with spines: the other having membranous lobes, which serve as wings to them in their flight. The top of the head is membranous, shaped like an awl, and divided at its extremity. This animal is one of the innumerable instances which Nature affords of the infinite wisdom of the Creator; for, whenever an animal is found to deviate in shape from the general system, it is still formed to answer the design of its existence. Thus, this insect, having such long legs, could never have sustained itself in the air, had not Providence bestowed on their legs themselves a species of wings

to balance their weight. These are instances with which Nature teems; and which would make the atheist tremble, would he but contemplate the admirable design and system with which they are characterised as

——— parts of one stupendous whole;
Whose body Nature is, and God the soul.

These insects are generally of a very beautiful green; but their colour soon fades, and becomes that of dead leaves; which has caused the inhabitants of China, where they are found, to call them by the name of Walking Leaves.

The larvæ very much resemble the perfect insect, but are seldom seen in this country.

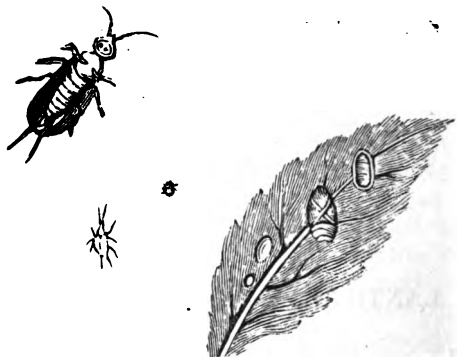


THE LANTERN FLY OF THE EAST INDIES.

THIS Lantern Fly is a nocturnal insect, with a hood, or bladder on its head, which appears like a lantern in the night: but by day it is clear and transparent, and very curiously ornamented with red and green stripes. Such a shining light issues from this part of the insect, that it is possible to read by it. The wings and whole body are elegantly adorned with a mixture

of red, green, yellow, and other splendid colours. The creature can contract or dilate the hood, or bladder, as it pleases.

These flies are as luminous as a lighted torch, and reflect a lustre on all neighbouring objects. They are in continual motion during the night ; but this motion is various and uncertain, alternately rising and sinking. They commonly hover about six feet from the ground. It is said that not a night in the year occurs in which they are not seen ; but in winter they are more frequently observed than in summer. Neither rain nor snow prevents their appearance. From all these circumstances, many have erroneously supposed them to be merely the *ignis fatuus*, or jack-o'-the-lantern, which exhales from marshy lands, over which it is seen to hover in the night.



THE COCHINEAL FLY.

THE Cochineal insect is of an oval form, of the size of a small pea, with six feet and a trunk ; it brings forth its young alive, and is nourished by sucking the juice of the plant. Its body consists of several rings, and

thorax. The principal difference between the sexes consists in the abdomen of the male being covered with brown wing-cases, shagreened, and marked longitudinally with two lines; these are longer than the abdomen. The female is destitute of wings.

4. THE GNAT

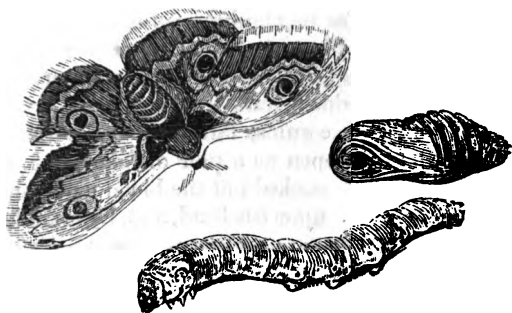
Is an insect which deserves the observation of the naturalist, not only for the most curious conformation of its lancet, which so quickly and powerfully cuts our arteries and small veins, and through which it sucks our blood into its body, but also for the several metamorphoses it undergoes before it arrives at its winged state. The Gnat deposits its eggs upon the slimy surface of stagnant water, and sets them upright one against another, in the form of a small boat; after floating upon the water for several days in the first warm weather in the spring, as soon as they feel the time of hatching, the worms, which the eggs contain, precipitate themselves to the bottom, and there feed for a fortnight; after which time they undergo another transformation. The result is a curious animal, with a kind of wheel in incessant motion, through which it imbibes the air at the surface of the water, to which it is obliged to repair every moment; having passed about ten days in this state, their increase being at an end, they assume another form, and keep longer near the surface, and at last the outer skin bursts, and the winged insect, standing upon the *exuvie* he is going to leave behind, smooths his new-born wings, springs into the air, and begins his depredations. The fecundity of this animal is so remarkable, that, in the course of summer, they might increase to the amazing number of five or six hundred thousands, if Providence had not ordered that they should become the prey of birds, who by this means prevent their multiplying more.

than they generally do. The sting, or lancet, which this insect carries at its mouth, is a microscopic object, and affords the lover of natural wonders great subject for inquiries. Its trunk is in the shape of a scaly sheath, and so fine, that the extremity can scarcely be seen with the assistance of the best microscope; from this trunk it darts five small cutting instruments, which inflict those troublesome wounds we feel so keenly, and which are attended with a local swelling, which is produced by a small drop of poison distilling down the lancet, and a drop of caustic liquid emitted at the hinder part of the body; this swelling occasions the blood to rush to the wound, and the insect is seen to swell and become red, as the blood ascends into its body.

5. THE ANT-LION

Is an insect of wonderful properties; it is hatched from an egg laid in soft moving ground, or sand; the insect increases soon in size, and assumes the shape of a small spider, with this difference, that his legs are constructed in such a way that he proceeds backwards; he has six feet, and the belly is in the shape of a heart, armed with small tubercles and bristles. The corselet, to which the legs are attached, is small; and the head is armed with two horns, not unlike those of the stag beetle, and two very sharp eyes. What must create our utmost admiration is, that this insect, which cannot move but in a retrograde direction, is doomed by Nature to feed upon flies and ants, the quickness and agility of which would at all times deprive him of his prey; but he has been endowed with an uncommon instinct, attended with stratagem: he makes a kind of funnel-like hole in loose earth or sand, and placing himself at the bottom of it, waits there with the utmost patience, for several days, till an uncautious ant, or giddy fly, falls into the deathful pit. Then all his skill

is put in requisition ; he throws out, by the shaking of his horns, a great quantity of sand upon and above the insect, to prevent its climbing up the steep sides of his hole ; and, when the prey appears strong and nimble, he gives a general commotion, the whole construction crumbles down, and the imprudent insect, overwhelmed with the ruins, falls into the horns of the Ant-lion, which open as a pair of forceps at the bottom. When he has sucked out the blood and inside of his prey, he takes it upon his head, and, by a sudden jerk, throws the carcass to a distance from his abode. After passing several weeks in these watchings and troubles to get his food, being then grown to a larger size, he makes himself a kind of hall out of the sand, which he hangs inside with a shining kind of thread or silk, and remains there till he arrives at his second state, which is a sort of chrysalis or larva, the appearance of which is between the past and the future form. From this larva, this shapeless, uncouth, ill-looking, mummy-like being, arises a slender-waisted, winged insect, which, after fluttering about for a few weeks, performing the duty of nature, and depositing eggs in the sand, resigns its life. The winged insect has a head of a chestnut colour ; the body is of a pearly gray, the legs short, the wings long and grayish, and the superior ones marked with four brown spots. It is often seen fluttering about the sides of roads and dry banks exposed to the east, in the months of June and July—continues for a little time, and then entirely disappears. The Ant-lion is very rare in this country ; but in France and Italy there is not a bank on the sides of a public road, or a sandy ridge at the foot of an old wall, which does not harbour a great number of these insects.



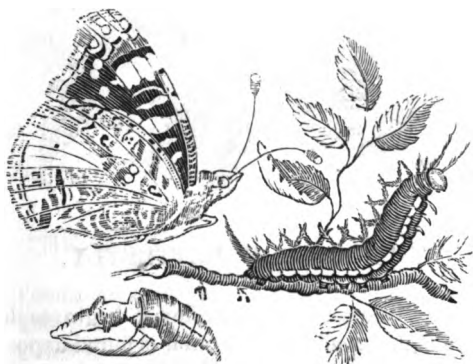
BUTTERFLY. CHRYSALIS. CATERPILLAR.

At once came first whatever creeps the ground,
 Insect or worm. Those waved their limber fans
 For wings, and smallest lineaments exact
 In all the liveries deck'd of summer's pride,
 With spots of gold and purple, azure and green.

MILTON.

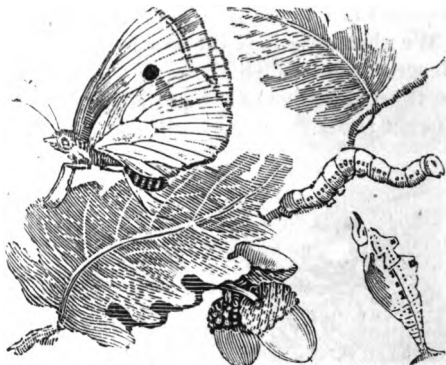
It would be a considerable task to enumerate, and a much greater one to describe, every insect which obtains these names. Every bush, every tree, every plant, has its assigned Caterpillar, or an insect nearly of the same nature; and that which lives on the nettle could no more feed upon the elm or mulberry tree, than the ox upon raw flesh, or the wolf upon straw or hay. The Caterpillars are divided into two classes, the regular and the irregular ones. The regular have sixteen feet, two near the tail, eight along the body (four on each side), and six about the fore part of the breast, which they use when they spin, to direct the thread which issues out of their mouths. The irregular ones have any other number, and sometimes as few as only six. Their metamorphoses have been from the

earliest times a subject of admiration for the wisest observers of Nature; and their acquiring wings, after passing through a state of apparent insensibility, generally received as an emblem of the immortality of the soul. We shall give here the description of a few of these insects, from which the reader will be able to acquire the knowledge of the particular habits of all the different tribes.



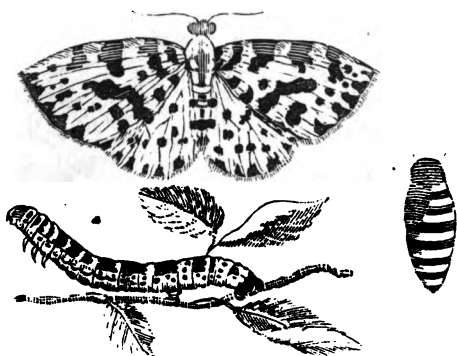
TORTOISE-SHELL BUTTERFLY.

THE Caterpillar which feeds on the nettle is about an inch in length, covered with bristles, and of a reddish brown colour. After having changed its skin three times when in the shape of a worm, it crawls up to a branching part of the stalk; and, hanging itself by the hinder part or tail, swells and bursts in such a curious way, that the Caterpillar's skin drops to the ground, and the Chrysalis, or Aurelia, so called from the golden tinges of its body, remains suspended; till, after a fortnight of torpor, it bursts its skin again, and escapes in the vast plains of the air, under the beautiful form of a variegated Butterfly.



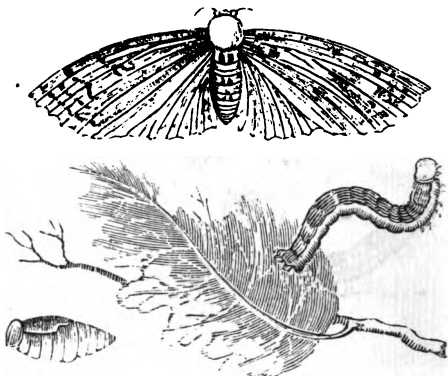
THE MEADOW BUTTERFLY.

WHEN the colewort and cauliflower begin to heart, the perfect insect of this caterpillar is found depositing her eggs upon the leaves. The heat of the sun soon vivifies them and brings forth the caterpillars, which immediately proceed to consume the vegetables on which they received being. They bear the heat of the sun without inconvenience; but cannot endure long rains; for in wet weather they waste so fast as, in a very short time, to have nothing left them but their skins. The worm prepares for its transformation about the third of August; and, on the seventeenth of the same month, the Butterfly is produced. The perfect insect is very inactive, and slow in its motions. It generally exists throughout the winter; and has been found alive when the spring has been far advanced.



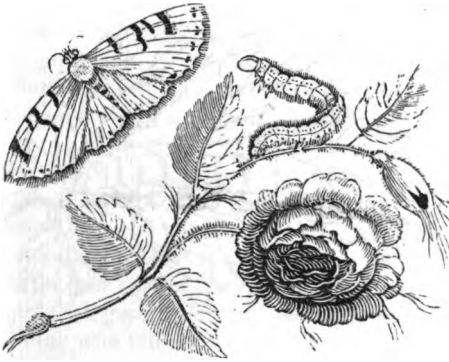
THE MAGPIE OR CURRANT MOTH.

A CELEBRATED entomologist sought in vain, for a considerable time, to find in what place and manner this insect deposited its eggs. After many trials and inquiries, he placed one upon a leaf; which he had no sooner done, than it began to cover itself with a woolly substance, seemingly as a preservation against wet or cold. The leaf being in a little time opened, he found a green seed: and soon discovered that the insect fed on gooseberry leaves, or curling vines; as also the leaves of white, black, and red currants. It began about the end of June to prepare for its state of transformation, in which it remained until the thirteenth of July, when a Butterfly, spotted with black and white, sprung forth to enjoy its new state of perfect being. When touched, or suffered to fall, it remained so motionless as to appear dead.



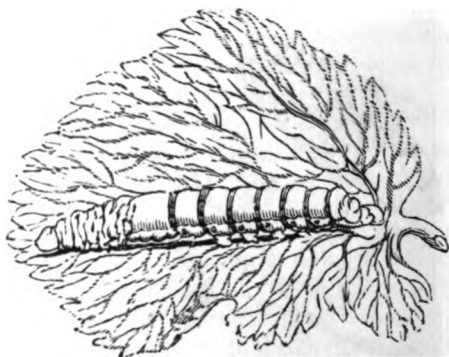
THE NUTTREE MOTH.

THIS worm, or caterpillar, delights in rose leaves ; but is not so ravenous as many others ; having long intervals between its meals. It seldom quits a leaf until it is entirely consumed. The colour is very elegant. The upper part of the body is of a fine yellow. But it is by no means so beautiful after as before feeding, its skin being so thin as to imbibe the hue of whatever food it eats. Before it disposes itself for transformation, the body assumes a red colour. This insect was found to commence its aurelia state about the beginning of June ; and on the fifth of December a perfect insect was brought forth, as above delineated.



THE TIGER MOTH.

THESE caterpillars feed on the leaves of red roses, and gooseberry bushes. Some have their feet in the middle of their body, others at the extremities. When they change place from one situation to another, they ascend by attaching themselves to the bough with their feet, by which they raise the body like a serpent, and thus gain their desired situation. They hold themselves so fast by their feet, that they can scarcely be taken from the part to which they adhere. They prepare for transformation by cleaning their bodies; which being done, they commence their chrysalis state about the first of April, and on the twenty-fourth of July the perfect insect is produced.



THE SILKWORM.

WITHOUT entering into a very minute description of this worm, we shall confine ourselves to what we think will be at once more interesting and more useful. The Silkworm being an insect of universal service, and not of singular beauty, we are induced to prefer giving an account of its utility, rather than any elaborate description of its figure or colour.

This insect feeds on the leaves of the mulberry tree, and, when first produced, is extremely small and entirely black. In a few days it appears in a new habit, which is white, tinged with the colour of its food; and before it goes into its chrysalis state, it assumes two other dresses. At this time, as if disgusted with the world, it voluntarily retires to its solitary grave, which is most admirably formed with its thread. How wonderful must be the structure of its body, to furnish such a thread; and how astonishing the instinct which teaches it to make, of this self-produced material, its

own tomb! And how also should it diminish the pride of man, to consider that he is indebted, for his most gaudy array, to a substance of which a worm forms its sepulchre!

This worm produces its silk by means of a pair of holes in an instrument placed under its mouth. Two drops of gum serve it as distaffs, supplying the substance from which it spins the thread; for the gum is no sooner in air than it loses its fluidity, and changes to silk, in the due size of which the worm is never deceived, but always proportions the thread to the weight of its body. The cone of silk being formed, and opened, is found to consist of the worm, changed to a nymph, and buried in its centre; a down or flue, which is the bad part of the silk, and the perfect part, all ranged with great order and compactness.

The Being who taught it how to erect this place of rest, taught it, at the same time, to find an easy mode of egress to its aerial existence. The new animal, with its horns, head, and feet, directs its efforts to that end of the cone which it had purposely left light enough to admit its passage to another world of enjoyment.

The art of manufacturing silk was known to the ancients; but, in Europe, this commodity, long after its invention, was of very great value. We are informed that, in the third century, the wife of the Roman emperor Aurelian entreated him to give her a robe of purple silk, and that he refused this, under an allegation that he could not buy such a robe for its weight in gold.

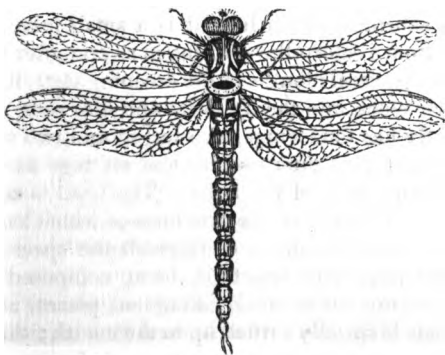
It is not certain at what precise period the silk manufacture was first introduced into England. But in the year 1242, we are told that part of the streets of London were covered or shaded with silk, for the reception of Richard, the brother of Henry III. on his return from the Holy Land. In 1454 the silk manufactures of England are said to have been confined

merely to ribbons, laces, and other trifling articles. Queen Elizabeth, in the third year of her reign, was furnished by her silk-woman with a pair of black knit silk stockings, which she is stated to have admired as "marvellous delicate wear;" and after the using of which she no longer had cloth ones as before. James the First, whilst king of Scotland, requested of the earl of Mar the loan of a pair of silk stockings to appear in before the English ambassador, enforcing his request with the cogent appeal, "For ye would not, sure, that your king should appear as a scrub before strangers."

THE CLOTHES MOTH.

THE larva of this little Moth is well known from the damage it commits in woollen cloth and furs. These substances constitute the principal support of the caterpillar, and therefore the parent is, by its natural instinct, directed to deposit its eggs in them. As soon as it quits the egg, the caterpillar begins to form for itself a nest: for this purpose, after having spun a fine coating of silk immediately around its body, it eats the filaments, of the cloth or fur, close to the thread of the cloth, or to the skin. This operation is performed by its jaws, which act in the manner of scissors. The pieces are cut into convenient lengths, and applied, with great dexterity, one by one, to the outside of its case; and to this it fastens them by means of its silk. Its covering being thus formed, the little caterpillar never quits it but in the most urgent necessity. When it wants to feed, it puts out its head at either end of its case, as best suits its conveniency. When it wishes to change its place, it puts out its head, and its six fore legs, by means of which it moves forward, taking care first to fix its hind legs into the inside of the case, so as

to drag it along. After having changed within its case into a chrysalis, it issues, in about three weeks, a small, winged, nocturnal Moth, of silvery gray colour, well known to almost every mistress of a family. The best mode of destroying this insect, when in the cloth, is to place a saucer of oil of turpentine with the goods affected in a close place, when the vapour raised by the warm air will immediately destroy it. Should the caterpillar be old and strong, it may be necessary to brush the clothes with a brush, the points of which have been dipped in turpentine.



THE GREAT DRAGON FLY.

THIS genus of insects is well known to every one. The largest species is produced from a water worm that has six feet, which, while young, is transformed to a chrysalis that has its dwelling in the water. It wears a kind of mask, which it moves at will, and which serves to hold its prey while it devours it. The period of transformation being come, the chrysalis goes

to the water-side and fixes on a plant, or sticks fast to a piece of dry wood. Its skin, grown parched, splits at the upper part of the thorax. The winged insect issues forth gradually, throws off its slough, expands its wings, flutters, and then flies off with gracefulness and ease. The elegance of its slender shape, the richness of its colours, the delicacy and resplendent texture of its wings, afford infinite delight to the beholder. It is in length about four inches, and of proportionate thickness.

The female deposits her eggs in the water, from whence spring water worms, which afterwards undergo the same transformations.

The *Ephemera*, or *Day Fly*, is so called on account of the shortness of its life; it is a small insect originating from a caterpillar residing in rivers; after having remained several months in the creeping state, it bursts at four o'clock into the fly form, and dies soon after.

The fly has four wings, two larger and two smaller ones, attached to the corselet; and six legs fixed also to the same part of the body. The head is adorned with two or four antennæ, the form of which has often been a characteristic to distinguish the species; the eyes are large and beautiful, being composed of an immense number of small hexagonal pieces, and the proboscis is spirally turned up to the mouth; the belly or hinder part is composed of rings and covered with hairs. The eggs of most part of these insects are laid in summer or autumn, and pass the winter season in that state.

It is curious to see the eddies which the small nocturnal insects describe around a light in the evening; and almost impossible to guess what attracts them so powerfully to their own ruin.



THE BEE, WASP, AND LADY-COW.

1. THE BEE.

——— One summer's morn
 A Bee ranged o'er the verdant lawn ;
 Studious to husband every hour,
 And make the most of every flower.
 Nimble from stalk to stalk she flies,
 And loads with yellow wax her thighs ;
 With which the artist builds her comb,
 And keeps all tight and warm at home ;
 Or from the cowship's golden bells
 Sucks honey, to enrich her cells ;
 Or ev'ry tempting rose pursues,
 Or sips the lily's fragrant dew ;
 Yet never robs the shining bloom,
 Of either beauty or perfume.

COTTON.

THESE insects are divided into several species, which are distinguished from each other by differences both in talent and disposition. Some live in society, and share its toils : others dwell, and work in solitude ; building the cradles of their families, as instanced in the Leaf-cutter Bee, with a rose-leaf ; in the Upholsterer, who employs the gaudy tapestry of the corn rose ; in the Mason Bee, who uses plaster ; and in the Wood Piercer, whose material is saw-dust. But in their little kingdom, the hive, all are employed in providing for their posterity, and contributing to the general welfare of the community.

Of Bees there are three kinds, the Plebeians, the Drones, and the Queen. The Queen, or Parent Bee, is the soul of the hive; to her all the rest are so attached, that they will follow her wherever she goes. If she dies, all their labours are at an end, an universal mourning ensues, and all her subjects reject their food and follow her. Should a new queen arise, before this catastrophe attends the hive, joy renovates their spirits, and their toils are renewed. This has been observed by removing the chrysalis of a Queen Bee from one hive to another which had lost its own empress. But this attachment is only in proportion to the utility she affords to the commonwealth. She is so prolific as to lay fifteen or eighteen thousand eggs, which produce about eight hundred males, four or five Queen Bees, and the rest Neuters, or Plebeians. Their cells differ in size; the largest are for the males, the royal cells for the Queens, and the smallest for the Neuters. The Parent Bee deposits in these cells such eggs as will produce the species for which they are respectively destined. In two or three days the eggs are hatched, when the Neuters turn nurses to the rest, whom they feed, most tenderly, with unwrought wax and honey. After twenty-one days, the young bees are able to form colonies, and with such indefatigable activity, that they will then do more, in one week's time, than during all the rest of the year. Sometimes there are Bees who, less laborious, support themselves by pilaging the hives of the rest; upon which a battle ensues between the industrious and the despoiling insects. Frequently contentions will arise among them, when a new colony seek their habitation in a hive already occupied. Their foes are the wasp and hornet, who rip open their bellies with their teeth, in order to suck out the honey contained in the bladder. Sparrows, also, sometimes, are seen to take one in

their bill, and one at the same time in each of their claws.

The Bee collects the honey by means of its proboscis, or trunk, which is a most astonishing piece of mechanism, consisting of more than twenty parts. Entering the hive, the insect disgorges the honey into cells, for winter subsistence; or else presents it to the labouring Bees. A Bee can collect, in one day, more honey than a hundred chymists could extract in a hundred years.

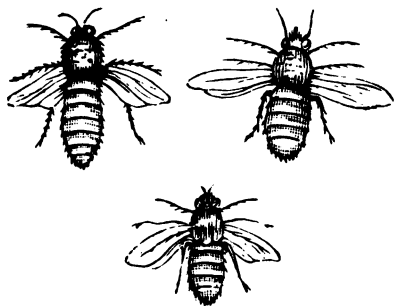
When they begin to form their hive, they divide into four parties: one is deputed to the fields to collect materials, another ordered to work on these materials, a third is left to polish the rough work of the cells, and the fourth allotted to provide food for the labourers. There are waiters always attending to serve the artisan with immediate refreshments, lest he should be too long absent from his work, by going to gather it himself.

So expert are the Bees, that a honeycomb, composed of a double range of cells, backed one against another, and which is a foot long, and six inches broad, is completed in one day, so as to contain three thousand Bees. The cells are most curiously composed of little triangular sides, which unite in a point, and exactly conform to the like extremities of the opposite cells respectively. At every cell the entrance of them forms a ledge, which fortifies the aperture, and prevents the injuries it might receive from the frequent ingress and return of the Bees.

How grateful ought we to be for the creation of this admirable insect! To its toil and wisdom we are indebted for one of the most agreeable and wholesome substances afforded by Nature. Were it not for the Bee, these flowery sweets would be lost in the "desert air," or die with the fading flower.

In the following cut are given a very accurate

representation of, first, the *Queen Bee*, placed on the left hand side; and, on the right side of her, the *Drone*; below them both is represented the *Working Bee*.



2. THE WASP

Is a very fierce, dangerous, and rapacious insect; it is much larger than the Bee, and furnished with a powerful sting. The belly is striped with yellow and black. They make a curious nest, which they sometimes hang at the top of a barn or other place, or in the hollow of a large tree, but more commonly construct in a hole in the ground. They live there nearly under the same regulations as the bees do, and the building of the interior of their nests is admirable, being composed of pillars, galleries, and cells, where they educate their young to swarm at the appointed time. Like the male honey-bees the male Wasps are destitute of stings; but the females and neuters have stings, the poisonous liquor of which, when introduced into the human body, excites inflammation, and creates very considerable pain.

3. THE LADY-COW, OR LADY-BUG.

IT would be curious to find the real etymology of the name of this small insect; it is well known, and often comes into our houses, and sits upon the hands and work of our ladies. It is perfectly harmless, and there are several species of them. They have a very small head and a corselet, both black. The body and cases of the wings vary according to the different species; yet, in general, they are red, with seven black spots strewed upon them; some even present nearly a perfect representation of a death-head. It is very serviceable in destroying the *aphides*, or plant lice, with which vegetables are apt to be infested.



THE APHIS, OR PLANT-LOUSE.

THE species of *Aphis*, the egg and winged insect of which are represented above, lives upon the sweetbriar. In the first state the creature resembles the lady-bug in figure, but in colour it is a bright green, and is much smaller. The second metamorphosis does not alter much the pristine form; the insect seems only heavier

and swoln, and the green is changed into gray—the last transmutation produces a curious being, an exact but much magnified figure of which is here given. The principal object of admiration, in the natural history of this creature, is the curious manner in which the female secures her eggs against other insects crawling in search of food on the branches of the briar. Not unlike the spider, when he begins his web, she fixes on the bark a certain glue contained in her body, and which consolidates immediately at the first contact with the atmospheric air; drawing that sort of thread with her, she proceeds to the distance of about half an inch, and then expels the egg at the end of the thread. Immediately, that elastic substance restores itself from the bent occasioned by the recession of the insect, and rising, assumes the form of the club-headed moss. The eggs are hardly perceptible to the naked eye, and set together to the number of ten or twelve, waving at the top of the stalk, and presenting the most perfect appearance of the moss above mentioned.

The Aphides are sometimes viviparous, and at other times oviparous, according to the season of the year. Those of the rose-tree have been particularly noticed, and of ten generations produced in one spring, summer, and autumn, the first generation was oviparous, the eight following viviparous, and the last oviparous. The first nine generations consisted of females only; but in the tenth there were some males.

After a mild spring, most of the species of *Aphis* become so numerous as to do considerable injury to the plants on which they are found. The best mode of remedying this evil is to lop off the infected shoots before the insects are greatly multiplied, repeating the same operation before the time the eggs are deposited. By the first pruning, a very numerous present increase will be prevented; and by the second, the following year's supply may, in a great measure, be cut off.



THE LOUSE AND FLEA.

1. THE LOUSE

Is an insect of the order aptera, that is to say, those that have no wings. Several animals are pestered by this or similar kind of vermin, and every one is different according to the substance upon which it feeds. The human Louse deserves a particular notice. Its skin is very transparent, so that, when examined by a powerful microscope, you can see its blood and intestines in motion. The body is divided into three parts; the head, the corselet, and the belly. In the head are two black eyes, and over each a horn or antenna, composed of five joints, and surrounded with hairs; and instead of a mouth, this teasing insect is armed with an instrument enclosing a piercer and a sucker, which it thrusts into the skin, and through which it draws the blood and humours that constitute its principal support. This piercer is supposed to be seven hundred times smaller than a common hair! and is capable of being retracted or protracted. The breast is also transparent, and to it are joined the six legs, consisting of five joints each, and covered with a skin resembling shagreen. At the extremity of each foot are two claws of unequal size, covered with hairs; the skin of the belly is also like shagreen, and at the extremity are small prominences, as may be observed in

several other insects. By the help of the microscope, the whole process of its sucking the blood and humours is plainly seen, as well as the passing of them through the intestines. They lay about a hundred eggs in twelve days; and when the body upon which they feed is labouring under some disease, the fecundity of this insect is most astonishing. These eggs are naturally hatched in six days, so that in the space of two months a female might have five thousand offspring. This peculiar disease was more frequent amongst the ancients than it is with us, which was owing to their using hardly any linen cloth next to their skin. Their woollen toga, mantles, and other coverings, which were but now and then sent to the scourer, harboured the vermin much more snugly than our linen garments. Pherecydes, a philosopher of Scyros, who had the honour of being the master of Pythagoras, declared, in a letter which he wrote a few days before his death, "that he was covered with lice," and did not seem to show any reluctance at mentioning it. The best preservative against this pest is cleanliness.

What must astonish us is, that a child born in a clean and respectable house, distant from any place where these vermin may abide, will sometimes be plagued with them, till attention and maternal care have destroyed the whole.

2. THE FLEA

Is another of those vexing little creatures which mankind has been doomed to be tormented with. Less ignoble than the louse, and of a livelier nature, it is more generally troublesome, as, by its leapings, it often escapes being caught. It is oviparous, and the egg, which is hardly discernible by the naked eye, yields a small white worm, beset with hairs; these

eggs, as well as those of the louse, are generally called nits. The Flea is an active, troublesome, blood-thirsty insect; it has a small head, large eyes, and roundish but compressed body, which is covered with a kind of armour resembling the tortoise-shell in colour and transparency. The plates of which this skin is composed are also armed with spines or bristles. It has six legs, two of which are much longer than the other, in order to enable the insect to make such wondrous leaps, as to raise the body above two hundred times its diameter. It is observed, that in one day the Flea will devour above ten times its own bulk. They suck the blood out of the small arteries and veins next to the skin, which they perforate with an instrument naturally contrived for this purpose, leave a red mark behind, and discharge the blood which they have digested in red spots upon our linen. Cleanliness is also the best preservative against Fleas.

The *Mite* is a well known insect, which preys upon fresh and putrid substances, particularly where a sort of fermentation is excited by heat. It is a crustaceous animal, and, like the common louse, almost transparent. It has a sharp snout, two small eyes, and six legs. It is curious to see how their busy tribes work, in common, to hew down huge rocks and mountains of old cheese, in order to get at that particular spot, where they can more comfortably feed themselves and deposit their eggs; which are so minute, that, as it has been computed, a pigeon's egg exceeds the dimension of one of them thirty millions of times. That life, instinct, and perpetuity of reproduction should exist in so small a being, is highly astonishing; and yet the Mite is not the smallest of living creatures. The microscope has opened the eye of man upon a world of innumerable animalcules, which people the three inhabitable elements of Nature. Myriads of them dance with the motes in the sunbeams, they swim by

millions in a dewdrop, prepare the glebe for vegetation,
and ebb and flow with the air of our breath.

These, conceal'd
By the kind art of forming Heaven, escape
The grosser eye of man ; for if the worlds,
In worlds enclosed, should on his senses burst,
From cates ambrosial and the nectar'd bowl
He would, abhorrent, turn ; and in dead night,
When silence sleeps o'er all, be stunn'd with noise.
THOMSON.



THE ICHNEUMON.

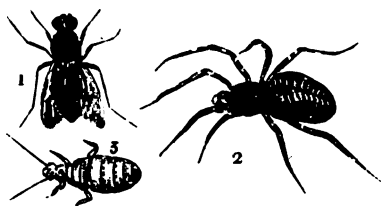
THE mouth of this insect has jaws, without any tongue. The horns contain more than thirty joints ; and the abdomen is generally joined to the body by a pedicle. The sting is enclosed in a cylindrical sheath, composed of two valves.

One distinguishing and striking characteristic of this species of flies is the almost continual agitation of their antennæ. The name of Ichneumon has been applied to them from the service they do us by de-

stroying caterpillars, plant-lice, and other insects; as the *Ichneumon* and mangouste destroy the crocodile in the East. The posterior part of the females is armed with a wimble, visible in some species, though not in others; and this instrument, though so fine, is able to penetrate through mortar and plaster. The structure of it is more easily seen in the long-wimbled fly. The food of the family produced by this fly is the larva of wasps or mason bees; for it no sooner perceives one of those nests, than it fixes on it with its wimble, and bores through the mortar of which it is built. Some deposit their eggs withinside those of caterpillars, after piercing them for that purpose with their wimble; and when the larva is hatched, its head is so situated that it feeds upon the caterpillar, penetrating to its very entrails; these larvæ pump out the nutritious juices of the animal without attacking its vitals; for it appears healthy, and even sometimes transforms itself to a chrysalis. It is not uncommon to see caterpillars fixed upon trees, as if they were sitting upon their eggs; when it is afterwards discovered that the larvæ, which were within their bodies, have spun their threads, with which, as with cords, the caterpillars are fastened down, and so perish miserably.

“A friend of mine,” says Dr. Derham, “put about forty large caterpillars, collected from cabbages, on some bran and a few leaves, in a box, and covered it with gauze to prevent their escape. After a few days we saw, from more than three-fourths of them, about eight or ten little caterpillars of the *Ichneumon* fly come out of their backs, and spin each a small cocoon of silk, and in a few days the large caterpillars died.”

The *Ichneumons* performed great service in the years 1731 and 1732, by multiplying in the same proportion as did the caterpillars: their larvæ destroyed more of them than could any efforts of human industry.



THE
COMMON FLY, SPIDER, AND DEATHWATCH.

1. THE FLY,

ALTHOUGH the most numerous, most common, and domesticated, is among the least known of insects as to its general habits. They appear in a troublesome number in the beginning of warm weather, and remain with us, seeking their food on our tables, staining our mirrors and ceilings, till September, when they get benumbed, or what the vulgar call blind, and in a few days retire out of sight. Where they hide themselves; where and what are the maggots, which they lay for the next generation; how long they live; whether they die in the course of the winter, and are succeeded by a new set; are still problems in natural history. However, it is certain they are oviparous, and carry their eggs, which are of a pink colour, under their belly. They feed upon any thing that comes in their way, and are particularly fond of any kind of sweets.

2. THE SPIDER.

THERE are several kinds of this insect, all according with the following characters:—Eight crooked legs, eight eyes, the mouth furnished with two claws, and

the anus provided with papillæ or nipples for weaving a web. This insect is very rapacious, and therefore endowed by nature with talents of a very curious kind to get its prey. Sagacity, industry, patience, and strength, are the principal means through which it procures itself food. In this country spiders are not noxious; in warmer climates, the body is sometimes as big as a hen's egg, covered with hairs, and the bite is venomous. The eyes, which are set on the head to a number not exceeding eight, are destitute of lids, but defended with a horny substance, which is supposed to assist the sight. The extremity of each leg is furnished with three crooked claws, the other claw is less, placed higher up the leg, and serves it to adhere to the threads of the web. The web is wonderful in its formation.

The Spider's touch, how exquisitely fine!
Feels at each thread, and lives along the line.

POPE.

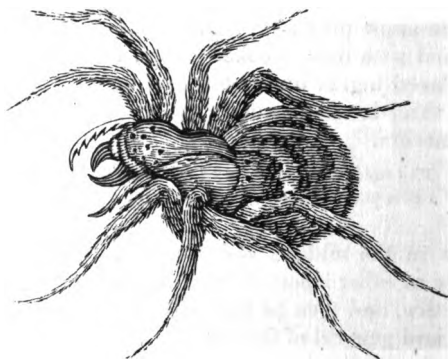
He sits in the middle, and the least motion, caused by a fly or other insect rushing against it, soon gives him notice, and then he falls upon his prey, sucks the blood, and gets rid of the remains. This hunt is often attended with great detriment to his nets, which he is soon obliged to repair. The female lays generally from nine hundred to a thousand eggs, which are kept in a kind of bag, but the fowls of the air check this tremendous population. The silk which the Spider produces has not strength enough to be employed for any useful purpose, though, out of curiosity, gloves and stockings have been woven out of it.

3. THE DEATHWATCH

Is not, as superstitious people have supposed, an insect that foretells our *exit* from this life. It is a small, harmless animal, somewhat like a wood-louse

U

or a beetle; and the ticking noise it makes seems to be produced by the upper lip, and the call of the male to the female. Many thanks ought to be given to that learned naturalist, Mr. Allen, who has discovered the cause of the noise; and has thereby considerably reduced the superstition, of which, for centuries, this insect had been the object. His description of the animal may be found in the Philosophical Transactions.



THE TARANTULA.

THIS Spider is a native of Italy, Cyprus, Barbary, and the East Indies. It lives in fields, and its dwelling is about four inches deep, half an inch wide, and closed at the mouth with a net. These Spiders do not live quite a year. They lay about seven hundred and thirty eggs, which are hatched in the spring. The parents never survive the winter.

Inflammation, difficulty of breathing, and sickness, are said to be the invariable consequences of the bite of this creature. Dr. Mead, and other medical men,

have countenanced the ridiculous story of these effects being counteracted by the power of music. It is, however, now well known, that this singular mode of cure was nothing more than a trick frequently practised on credulous travellers, who were desirous of witnessing it. Mr. Swinburne, when he was in Italy, minutely investigated every particular relative to this insect. The season was not far enough advanced, and it was pretended that no persons had that year been yet bitten: he, however, prevailed upon a woman, who had formerly been bitten, to dance the part before him. Several musicians were summoned, and she performed the dance, as every one present assured him, to perfection. At first she lolled stupidly on a chair, while the instruments played a dull strain. They touched at length the chord supposed to vibrate to her heart; and up she sprang with a hideous yell, staggered about the room like a drunken person, holding a handkerchief in both hands, raising them alternately, and moving in very true time. As the music grew brisker, her motions quickened, and she skipped about with great vigour, and in a variety of steps, every now and then shrieking very loud. The scene was unpleasant, and, at his request, an end was put to it before the woman was tired.

He informs us, that, wherever they are to dance, a place is prepared for them, hung round with bunches of grapes and ribbons. The patients are dressed in white, with red, green, or yellow ribbons; on their shoulders they have a white scarf; they let their hair fall loose about their ears, and throw the head quite back. He says that they are exact copies of the ancient priestesses of Bacchus. The introduction of Christianity abolished all public exhibitions of heathenish rites; but the women, unwilling to give up their darling amusement, in performing the frantic character of Bacchantes, devised other pretences; and he sup-

poses that accident led them to the discovery of the Tarantula, on the strength of whose poison the Puglian dames still enjoy their old dance, though time has effaced the memory of its ancient name and institution.

If these dancers are at any time really and involuntarily affected, Mr. Swinburne supposes it must be from some attack upon the nerves, a kind of St. Vitus's dance.



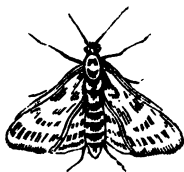
THE SMALL SILVER-COLOURED BOOK- WORM, MAGNIFIED.

Insatiate brute, whose teeth abuse
The sweetest servants of the muse !
His roses nipt in every page,
My poor Anacreon mourns thy rage;
By thee my Ovid wounded lies ;
By thee my Lesbia's sparrow dies ;
Thy rabid teeth have half destroy'd
The work of love in Biddy Floyd ;
They rent Belinda's locks away,
And spoil'd the Blouzelind of Gay :
For all, for ev'ry single deed,
Relentless justice bids thee bleed.
Then fall a victim to the Nine,
Myself the priest, my desk the shrine.

PARNELL.

THIS small, white, silver-shining worm, or moth, is found among books and papers, corroding and eating holes through the leaves and covers: it appears, to the naked eye, a small, glittering, pearl-coloured moth,

which, upon the removing of books and papers in the summer, is often observed to go into some corner, where it may the better protect itself from apparent danger. Its head is blunt, and its body tapers towards the tail, being divided into fourteen several partitions, having the appearance of so many several shells or shields. These shells are again covered or tiled over with a multitude of thin transparent scales, which, from the multiplicity of their reflecting surfaces, make the whole animal appear of a perfect pearl colour. This insect is furnished on either side of its head with a cluster of eyes; each of these clusters beset with a row of small bristles, much like the cilia or hairs on the eyelids; and, perhaps, serving for the same purpose. It has two long horns, curiously ringed or knobbed, having at each knob small hairs or bristles, here and there dispersed among them: besides these, it has two shorter horns, or feelers, knotted and fringed like the former. It has three tails, in every particular resembling the two longer horns that grow out of the head. The body is beset with sharp-pointed bristles, like spears.



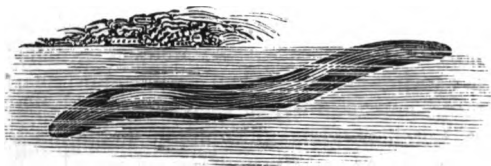
BOOK VI.

WORMS.

THESE creatures constitute a class by themselves, under the name of *Vermes*, in the voluminous works of nomenclators. They are generally divided into five orders, which embrace the whole of those innumerable tribes that swarm nearly every where. The Worm is distinguished from the caterpillar and maggot, on account of its undergoing no change, and crawling by means of the annular structure of its body.

The *Earth Worm* has neither bones, eyes, ears, nor brains; it has a round, annulated body, with generally an elevated fleshy belt near the head. Though considered a great nuisance by gardeners, they bore, perforate, and loosen the soil, and render it pervious to rains and the fibres of plants, by drawing straws and stalks of leaves and twigs into it; and chiefly by throwing infinite numbers of lumps called worm-casts, which form a fine manure for grass and corn.

The *Tania*, or *Tape-Worm*, the shape of which is well expressed by its name, is bred in the inside of animals, and principally in the bowels of the human species. Its body is flat, and composed of numerous articulations; and the head has four orifices for suction, a little below the mouth, which is terminal, and continued by a short tube into two ventral canals. The mouth is generally crowned with a double series of retractile hooks or holders. The author of these observations extracted, a few years ago, a Tape-Worm from the body of a ring-dove, to the length of more than three feet, at different times. The bird did not seem to labour under any uneasiness, although it lodged and boarded within itself so voracious and disagreeable a guest.



THE LEECH

Is about three inches in length, and in its exterior form somewhat resembles the worm, when extended, but often contracts itself greatly in length, and at the same time expands in breadth. It has a small head, a black skin, with six yellow lines above, and spotted with yellow on the belly. The mouth of the Leech is of a curious construction; it has no jaws or tongue, but three cartilaginous teeth, with which it pierces the skin; and then draws up, as through a siphon, the blood, which this small animal feeds upon. The progressive movement of the Leech is effected by sticking, through suction, its mouth to a certain spot, then bringing its tail, which has the property of sticking also, to any place, ever so smooth, and then advancing its head farther on, quickly followed by the tail, and so on. The common Leech is very frequent in brooks and rivulets; and often sticks to the legs of boys or men when bathing.

The blood, which the Leech sucks out of the wound it makes, remains long in its body, congealed and blackened, and at last evaporates by the pores of the skin. When they are kept in a bottle full of water, it is easily perceived that their ejections are performed by perspiration, and leave the skin as a kind of film, bearing in some sort the shape of the body. They are

also, when kept in a glass bottle with water, a good barometer, as they always come up to the neck of the bottle when rainy weather is approaching, remain in the bottom in dry weather, and move themselves anxiously up and down when the weather is stormy.—Horse Leeches are larger than the common ones, more voracious, and narrower at each extremity. The use of the Leech is well known in medicine, as by its means the blood is extracted from diseased parts, to which the lancet cannot be applied.



THE GARDEN SNAIL

Is furnished with four small horns; two of which are smaller than the others; at the end of these horns, which the animal pushes out or draws back, like telescopes, as most convenient to itself, are the eyes, which look like black spots, one upon each of the horns; and it is probable that the extending or contracting of these tubes is in proportion to the size or distance of the object which the animal wishes to see. The mouth is under the two smaller ones; and is armed with eight teeth, to enable it to devour leaves and other vegetable substances, its ordinary food. The reproduction of the Snail is most curious; at a certain time of the year they meet in pairs, and stationing

themselves an inch or two apart, they launch at each other several little darts, not quite half an inch long. These are of a horny substance, and sharply pointed at one end. The animals, during the breeding season, are furnished with a little reservoir for them, situated in the neck, and opening on the right side. After the discharge of the first dart, the wounded Snail immediately retaliates on its aggressor by ejecting at it a similar one; the other renews the battle, and in turn is again wounded. Thus are the darts of Cupid, metaphorical with all the rest of the creation, completely realized in Snails. After the combat they come together, each of them lays its eggs, which are about the size of small peas, semitransparent, and of a soft substance. We have observed the process of the eggs which a Water Snail, kept in a bottle of water, had deposited against the glass; with the help of a magnifying lens, the young Snail was seen in the egg, with its embryo shell on its back; we observed also two in one egg, each of them with the rudiments of the shell.

The Garden Snail is extremely tenacious of life, and the following well authenticated instance is probably without parallel in any other individuals in the animal creation.

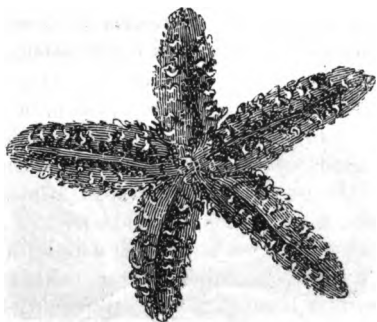
Mr. S. Simon, a merchant of Dublin, whose father, a fellow of the Royal Society, and a lover of natural history, left him a small collection of fossils and other curiosities, had, among them, the shells of some Snails. About *fifteen years* after his father's death (in whose possession they had continued many years), he gave to his son, a child of ten years old, some of these Snail-shells to play with. The boy placed them in a flower-pot, which he filled with water, and the next day he put them into a basin. Having occasion to use this, Mr. Simon observed that the animals had

come out of their shells. He examined the child respecting them; and was assured that they were the same which had been in the cabinet. The boy said he had a few more, and brought them. Mr. S. put one of these into water, and, in an hour and a half afterwards, he observed that it had put out its horns and body, which it moved but slowly, probably from weakness. Major Vallancy, Dr. Span, and other gentlemen, were afterwards present, and saw one of the Snails crawl out; the remainder being dead, probably from their remaining some days in the water.

The *Small Gray Slug* is a Snail without shell, and resembles it in all other points, except that the brown skin of the back is rougher and stronger than in the Snail. Its progress on the ground may easily be traced by the slime which it leaves in its track. Few animals are more destructive to vegetation than these.

The *Black Slug* is a well known inhabitant of our fields and meadows, during the summer season. The country people consider the appearance of this Slug as an indication of approaching rain; but this is rather to be accounted for by the moisture of the ground and of the plants. It is very seldom, indeed, to be observed abroad during dry weather, for this would deprive the external parts of its body of the moisture which is requisite for its subsistence. The Black Slug feeds on the leaves of different kinds of plants. The Slug is an emblem of tardiness and slowness; and our immortal Shakspeare introduces the Snail very appropriately in his description of the Seven Ages of Man; when he says,

And then the whining schoolboy, with his satchel
And shining morning face, creeping, like Snail,
Unwillingly to school.—



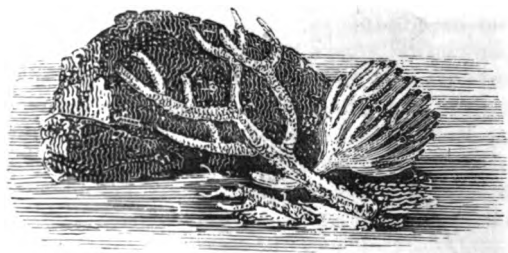
THE ASTERIAS, OR STAR-FISH,

Is a marine worm, often found adhering to rocks on the sea-shores. They have a slow and progressive motion, and, like the polypus, if cut into several pieces, have the property of forming again new limbs, and thereby becoming a whole individual. The common species is furnished with five rays, and is of a yellow or red colour. They are often found on the beach among sea-weeds, after a storm.

Mr. Bingley describes an animal of this species, which he kept by him for some time alive; it had more than four thousand tentacula on the under sides of the rays. These the creature frequently retracted, and again pushed out, as a snail does its horns; and by means of them it was enabled firmly to adhere to the dish of salt water in which it was kept. Whenever he touched the tentacula with his finger, all those of that ray or limb were gradually withdrawn, but those of the other rays were not in the least affected by it.

Like the other species, these animals breathe by

means of a kind of branchiæ or gills, which consist of a fringed substance extended along each ray, and communicating with the stomach. These all unite under a small circular and striated operculum, or cover, which may be observed on the back.



ZOOPHYTES.

THE creatures that rank under this order seem to hold a middle station between animals and vegetables. Most of them, deprived altogether of the power of locomotion, are fixed by stems that take root in crevices of rocks, among sand, or in such other situations as Nature has destined for their abode: these, by degrees, send off branches, till at length some of them attain the size and extent of large shrubs. The Zoophytes are usually considered under two divisions. The stony branches of the first division, which has the general appellation of coral, are hollow and full of cells, which are the habitations of animals resembling polypes, medusæ, &c. according to their respective genera. The next division consists of such animals as have softer stems, and are, in general, not merely inhabitants of a stem or branches, but are themselves in the form of a plant. Those of this division which are best known are the corallines, the sponges, and the polypes.

THE CORAL, AND CORALLINES.

THE Coral is a hard, stony, branched, and cylindrical substance which is formed, at the bottom of the sea, by certain minute animals called polypes, that issue from the branches, and are white, soft, semitransparent, and each furnished with eight tentacula or feelers. The general appearance of Coral is that of a shrub destitute of leaves; and its height is usually from three to four feet. It is found in great abundance in the Mediterranean and the Red Sea.

To the inhabitants of Marseilles, Catalonia, and Corsica, the Coral fishery is a very important pursuit; and the principal parts of the Mediterranean from which Coral is obtained are the coasts of Tunis and Sardinia, and the mouth of the Adriatic Sea. The British government has, within the last few years, concluded a treaty with the Barbary powers, for liberty to fish for Coral in their waters. The Coral thus obtained is conveyed chiefly to Malta and Sicily, is there wrought into beads and other ornamental forms, and thence is imported into this country. Previously to this arrangement, the principal import of Coral was from Leghorn.

The mode of obtaining Coral is by a very simple machine, consisting of two strong bars of wood or iron tied across each other, with a weight suspended from their centre of union. Each of the arms is loosely surrounded, through its whole length, with twisted hemp; and, at the extremity, there is a small open purse or net. This machine is suspended by a rope, and dragged along those rocks where the Coral is most abundant; and such as is broken off either becomes entangled in the hemp, or falls into the nets.

Coral is bought by weight, and its value increases in a certain ratio according to its size. Beads of large size are worth about forty shillings an ounce, whilst small ones do not sell for more than four shillings.

Large pieces of Coral are sometimes cut into balls, and exported to China, to be worn in the caps of certain persons, as an insignia of office. These, if perfectly sound and of good colour, and upwards of an inch in diameter, have been known to produce, in that market, as much as three hundred to four hundred pounds sterling each. There are extant many beautiful pieces of sculpture in coral; as this substance has in all ages been considered an admirable material on which to exhibit the artist's taste and skill. Probably the finest specimens of sculptured Coral that are known are a chess-board and men, in the Tuileries.

The Chinese have, within the last few years, succeeded in cutting coral beads of much smaller dimension than has hitherto been effected by any European artist. These, which are not larger than small pins heads, are called Seed Coral, and are now imported from China into this country in very considerable quantity for necklaces. Nearly the whole of the Coral that is used is of red colour, white Coral being considered of little value either as an article of commerce or decoration. There are modes of imitating coral so exactly, that, without a close inspection, it is sometimes impossible to discover the difference betwixt the real and the counterfeit article.

The *Corallines* are submarine productions, resembling plants, consisting of stalks and branches, often beautifully ramified, and composed of joints of an oblong figure, inserted into one another. Some of the species are oviparous, and others produce living offspring.

Sponge is an animal substance of a soft, light, porous, and elastic nature, which is found adhering to rocks at the bottom of the sea, in several parts of the Mediterranean, and particularly near the islands of the Grecian Archipelago. The general uses of sponge, arising from its ready absorption of fluids, and distension by moisture, are well known, and of great importance. It is

collected from rocks, in water five or six fathoms deep, chiefly by divers, who, after much practice, become extremely expert in obtaining it. When first taken from the sea, it has a strong and fishy smell, of which it is divested by being washed in clear water. No other preparation than this is requisite previously to its being packed up for exportation and sale. The growth of Sponge is so rapid, that it is frequently found in perfection on rocks from which, only two years before, it had been entirely cleared. It is principally imported into this country from the Levant.

THE LONG-ARMED AND GREEN POLYPE:

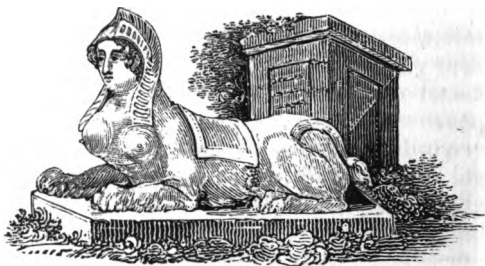
THESE are two species which will fully illustrate the nature of the whole tribe. They are found in clear waters, and may generally be seen in small ditches and trenches of fields, especially in the months of April and May. They affix themselves to the under parts of leaves, and to the stalks of such vegetables as happen to grow immersed in the same water; and they feed on the various species of small worms, and other aquatic animals, that happen to approach. When any animal of this kind passes near a Polype, the Polype suddenly catches it with its arms, and dragging it to its mouth, swallows it by degrees, much in the same manner as a snake swallows a frog. Two Polypes may occasionally be seen in the act of seizing the same worm at different ends, and dragging it, in opposite directions, with great force. It sometimes happens, that, while one is swallowing its respective end, the other is also employed in the same manner; and thus they continue swallowing, each his part, until their mouths meet. They then rest for some time in this situation, till the worm breaks between them, and each goes off with his share. But when the mouths of both are thus joined together upon one common prey,

a more dangerous combat now and then ensues. The largest Polype gapes and swallows his antagonist ; but what is extremely wonderful, the animal thus swallowed seems to be a gainer by the misfortune ; after it has lain in the conqueror's body for about an hour, it issues unhurt, and often in possession of the prey that had been the original cause of contention. The remains of the animal, on which the Polype feeds, are evacuated at the mouth, the only opening in the body. The species are multiplied, for the most part, by a kind of vegetation, one or two, or even more, young ones, emerging gradually from the sides of the parent animal ; and these young ones are frequently again prolific before they drop off : so that it is no uncommon thing to see two or three generations at once on the same Polype. But the most astonishing particular respecting this animal is, that, if a Polype be cut in pieces, it is not destroyed, but is multiplied by dissection ; it may be cut in every direction that fancy can suggest, and even into very minute divisions, and not only the parent stock will remain uninjured, but every section will become an animal. Even when turned inside out, it suffers no material injury ; for, in that state, it will soon begin to take food, and to perform all its other natural functions.

M. Trembley, of Geneva, ascertained that different portions of one Polype could be engrafted on another. Two transverse sections brought into contact will quickly unite and form one animal, though each section belong to a different species. The head of one species may be engrafted on the body of another. When one Polype is introduced by the tail into another's body, the two heads unite and form one individual. Pursuing these strange operations, M. Trembley gave scope to his fancy, and, by repeatedly splitting the head and part of the body, he formed hydras more complicated than ever struck the imagination of the most romantic fabulists.

AN
APPENDIX
UPON
FABULOUS ANIMALS.

HAVING constantly kept in view, from the beginning of this work, the combined plan of uniting interest with amusement, and truth unmixed with fables, we have rejected several animals, that had intruded themselves upon the reader, although they had no real claim to existence, and therefore no place in "The History of Nature." Yet, considering that some fabulous beings have frequently been made use of in poetry and allegorical paintings, we have thought it our duty to subjoin here an account of them, lest we might be accused, with some sort of apparent reason, of depriving infancy of instruction, youth of knowledge, and maturer age of entertainment. The sphinx, the dragon, and several others, meet the eyes of children and adults nearly every where; and since they do not find their names in the works of the historians of nature, and as there is no one at hand to satisfy the warm inquiries of those who thirst after knowledge, we have no doubt but a short account of these imaginary creatures will be deemed not only acceptable but useful to youth.



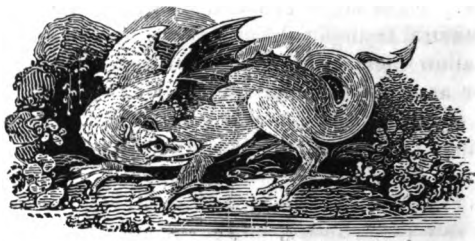
THE SPHINX.

PROVIDENCE has ordered, that, as the plains of Egypt are not visited by showers, they should be fertilized by the overflowing of the Nile. This noble river overflows its banks once a year, a little after the summer solstice. This annual phenomenon, bringing unfailing fertility in the vales of Delta up to Memphis, and under the basis of the majestic and venerable pyramids, was of the greatest importance to the people of Mesraim, from the far famed Pharos to the frontiers of Ethiopia. It was therefore their interest to find out and mark correctly the season, the month, and nearly the hour, when the flood should begin; chiefly as the sudden invasion of the waters was dangerous to the inhabitants of the lower places, the meadows and the fens, and often destroyed the cottages, dragged in the flocks, and drowned the improvident villagers. The star Sirius was remarked to emerge from the blazing neighbourhood of the sun about the time of the rising of the Nile; it was a warning, and it was called accordingly the Dog-star, as if barking from the heavens to apprise the inhabitants of the valleys of the imminent swelling of the stream. Another mode was adopted,

and they combined the signs of the zodiac answering to the two months, during which the overflowing takes place. These signs happening to be Leo and Virgo, the natural taste of the Egyptians of those times could not allow them to unite the two figures in the same order as they stand in the solar belt; they, therefore, combined them, and composed the figure of the Sphinx, which is partly a young woman and partly a lion. This, indeed, was an enigma for the Greeks and Phœnicians, who travelled as far as Egypt; they saw the monster, but could not understand the real meaning. They returned to their respective countries, and, fraught with more fancy than reality, invented the fable of the Sphinx offering riddles at the gates of Thebes, and destroying those who could not unravel them; since they were very likely told by the supercilious sages of that nation, that those who could not guess the meaning of the Sphinx were to forfeit their life in atonement for their ignorance. Long afterward, the real sense of the symbol was forgotten, and Egypt, in her superstition, began to worship the emblem, of which several remains are still found in that once flourishing country.

The Sphinx has been of late introduced in heraldry, to adorn the shields of those general officers who distinguished themselves against the French on the banks of the Nile; it has been admitted also to adorn our apartments in various ways; and two very beautiful specimens of them are seen on the front wall of Sion House, at Brentford, the seat of his grace the duke of Northumberland; they are of exquisite workmanship.

This chimerical figure is generally represented as sitting and at rest; an attitude which, being the most graceful for such a compound, has been adopted by Egyptian sculptors, and imitated by the Greeks and Romans.



THE DRAGON.

THIS fabulous animal, well known in the works of ancient poets and romancers, was supposed the tutelary genius of fresh water springs in the bosom of dark forests and enchanted rocks. Dragons were harnessed to the car of Ceres; they were the guardians of the golden apples of the Hesperides, and of the golden fleece of Colchis; and in several parts of the world set as trustees to the carbuncles and other precious stones, hidden at the bottom of wells and fountains. They are represented as scaly serpents, with webbed feet, and with wings similar to those of a bat; having been, it seems, originally a hieroglyphic emblem of the dangerous influence of an undue combination of air and water. Thus the serpent Python was the allegory of a pestilence, originating from a union of mephitic air and moisture. They have been long supporters to the arms of the city of London, as if the guardians of the wealth which commerce brings hither from all the parts of the world. Four of them are placed in fanciful attitudes, and beautifully carved, on the pedestal of the monument of London.

The Dragon, so often mentioned in the Scriptures, is supposed to be the Great Boa. Mr. Taylor thinks

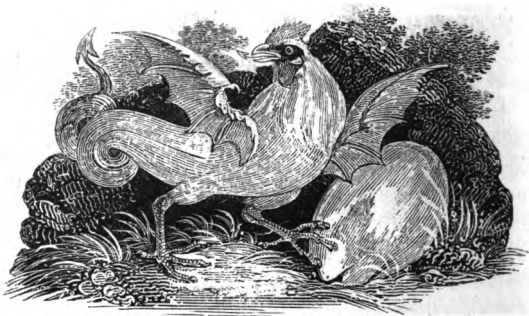
it probable that St. John had it in his mind when he describes a persecuting power under the symbol of a great red Dragon. The Dragon of antiquity was a serpent of prodigious size, and its most conspicuous colour was red; and the Apocalyptic Dragon strikes vehemently with his tail; in all which particulars it agrees with the Boa.



THE WIVERN.

THIS is also a fabulous animal, and in shape like the representations of the dragon, except that, instead of four, it has only two legs, which are armed with claws and webbed. There is no doubt that this imaginary being was originally conceived in the brains of poets, of romancers of old, and especially in times of chivalry, when the Croisaders overran the plains of Palestine and Assyria. The heat of the climate in some vales at the foot of the mountains, which intersect the deserts of those countries, bred naturally all sorts of serpents, and some of an immense size. The European soldiers

of Godfrey and Richard, unaccustomed to such sights, whenever they met those monsters on the sedgy banks of small lakes, under the shades of cedars and palm-trees, where they appeared as if posted to guard the sacred waters, so precious in a country so hot, were easily frightened ; and swelled, in their idle tales, when inactive in camps, the bulk of the serpent they had seen. The castle of Lusignan, in the province of Poitou, was supposed to contain one of those winged serpents. It is a very ancient armorial bearing, and is now standing as supporter to the arms of several illustrious houses.

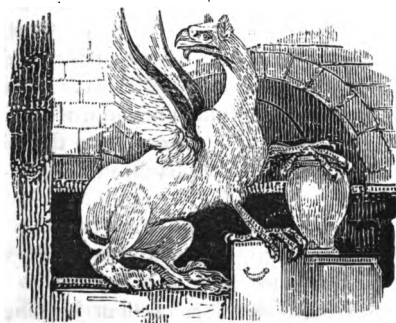


THE COCKATRICE, OR BASILISK.

THE fruitful imagination of man knows hardly any bounds. The being that bears the name of Basilisk was originally supposed to be a serpent, with a sort of comb or crown on its head : but that was not sufficiently marvellous. It was supposed also to be hatched from a cock's egg, upon which a snake had performed the duty of incubation ; and then no wonder if the animal, the result of this monstrous connexion, had

the head of a cock, and the wings and tail of a dragon. Hatched near a spring of water, the common resort of serpents, it was asserted, that, frightened at his own extraordinary shape, he soon precipitated himself to the bottom, whence, by the mortal look from his fiery eyes, he had the power of killing whoever dared to gaze at him. The name of *Cockatrice* alludes to this heterogeneous origin; and the animal is also found among ancient armorial devices.

The hooded serpent is supposed to be the Cockatrice of the Bible. The Basilisk is mentioned with the asp in the thirteenth verse of the ninetieth Psalm, "Thou shalt tread upon the asp and the Basilisk," a proof that a venomous serpent of this name was known in very remote times.



THE GRYPHON, OR GRIFFIN,

WAS originally an emblem of life. It was used to adorn funeral monuments and sepulchres. The anterior part of this allegorical animal resembles the eagle,

the king of the birds ; and the rest the lion, as the king of beasts ; implying that man, an inhabitant of the earth, who lives upon its produce, cannot subsist without air. But in latter times it was supposed that the Gryphon was posted as a jailor at the entrance of enchanted castles and caverns where subterraneous treasures were concealed. Milton compares Satan, in his flight, to the Gryphon, in the following beautiful passage :

As when a Gryphon through the wilderness
With winged course, o'er hill or moory dale,
Pursues the Arimasgian, who, by stealth,
Had from his wakeful custody purloin'd
The guarded gold ; so eagerly the fiend,
O'er bog or steep, through strait, rough, dense, or rare,
With head, hands, wings, or feet, pursues his way,
And swims, or sinks, or wades, or creeps, or flies.

The Arimaspians were supposed Asiatic wizards, who, by strength of magic, used to obtain a knowledge of the places where treasures lay hidden. Their incessant wranglings with the Gryphons about gold mines are mentioned by Herodotus and Pliny. Lucan says that they inhabited Scythia, and adorned their hair with gold ; that they had but one eye in the middle of the forehead, and lived on the banks of the gold-sanded river Arimaspias.

Virgil, in his eighth Pastoral, mentions this animal, as if really existing, but does not give us any description of it ; and Claudian, in his Epistle to Serena, alludes to the supposed fact of their keeping watch over masses of gold in the bosom of northern mountains.

THE MERMAID, OR SIREN.

THE existence of an animal, half a woman and half a fish, has long been talked of, believed, disbelieved, and doubted. Homer is the first who speaks of such beings, which he styles *Sirens*; but we do not find that he gives any description of their shape; however, it was soon asserted that the Sirens were as Horace, in his "Art of Poetry," paints the monster in one line:—

Above a lovely maid, a fish below.

The Sirens were three sisters, whose voice was so delightfully harmonious, so enticing, that no resistance could be made against its powerful charms; but "'twas death to hear," for they led the navigators and their ships to certain destruction among the rocks that bordered the dangerous coasts which they inhabited, near the shores of Italy.

The belief in the existence of Mermaids has been current at different periods, but naturalists are of opinion that beings, answering the description given of them, would be inverting the order of nature, and, therefore, cannot exist. We shall nevertheless give the following most extraordinary account, and we must leave the reader to draw his own conclusions from it. The writer of the letter, and the party to whom it is addressed, we know to be highly respectable individuals; and we are quite sure that the statement is given as correct as the writer's observations would permit her to make them.

The Mermaid seen on the coast of Caithness.—Letter from MISS MACKAY, daughter of the Rev. DAVID MACKAY, Minister of Reay, to MRS. INNES, Dowager of Sandside.

Reay Manse, May 25, 1809.

MADAM,—To establish the truth of what has hitherto been considered improbable and fabulous must be at all times a difficult task, and I have not the vanity to think that my testimony alone would be sufficient for this purpose; but when to this is added that of four others, I hope it will have some effect in removing the doubts of those who may suppose that the wonderful appearance I reported having seen in the sea on the 12th of January, was not a Mermaid, but some other uncommon, though less remarkable, inhabitant of the deep. As I would willingly contribute to remove the doubt of the sceptical on this subject, I beg leave to state to you the following accounts, after premising that my cousin, whose name is affixed along with mine, was one of the four witnesses who beheld with me this uncommon spectacle.

While she and I were walking by the sea-shore, on the 12th of January, about noon, our attention was attracted by seeing three people, who were on a rock at some distance, showing signs of terror and astonishment at something they saw in the water: on approaching them, we distinguished that the object of their wonder was a face resembling the human countenance, which appeared floating on the waves; at that time nothing but the face was visible: it may not be improper to observe, before I proceed farther, that the face, throat, and arms, are all I can attempt to describe, all our endeavours to discover the appearance and position of the body being unavailing. The sea at that time ran very high, and as the waves advanced, the

Mermaid gently sunk under them, and afterwards reappeared.

The face seemed plump and round, the eyes and nose were small, the former were of a light gray colour, and the mouth was large, and from the shape of the jaw-bone, which seemed straight, the face looked short; as to the inside of the mouth, I can say nothing, not having attended to it, though sometimes open. The head was exceedingly round, the hair thick and long, of a green oily cast, and appeared troublesome to it, the waves generally throwing it down over the face; it seemed to feel the annoyance, and, as the waves retreated, with both its hands frequently threw back the hair, and rubbed its throat, as if to remove any soiling it might have received from it. The throat was slender, smooth, and white; we did not think to observe whether it had elbows, but from the manner in which it used its arms, I must conclude that it had. The arms were very long and slender, as were the hands and fingers; the latter were not webbed. The arms, one of them at least, was frequently extended over its head, as if to frighten a bird that hovered over it, and seemed to distress it much; when that had no effect, it sometimes turned quite round several times successively. At a little distance we observed a seal. It sometimes laid its right hand under its cheek, and in this position floated for some time. We saw nothing like hair or scales on any part of it; indeed, the smoothness of the skin particularly caught our attention. The time it was discernible to us was about an hour. The sun was shining clearly at the time; it was distant from us a few yards only. These are the few observations made by us during the appearance of this strange phenomenon.

If they afford you any satisfaction, I shall be particularly happy; I have stated nothing but what I clearly recollect; as my cousin and I had frequently,

previous to this period, combated an assertion which is very common among the lower class here, that Mermaids had been frequently seen on this coast, our evidence cannot be thought biased by any former prejudice in favour of the existence of this wonderful creature.

To contribute in any degree to your pleasure or amusement, will add to the happiness of,

Madam, your greatly obliged,

ELIZ. MACKAY,
C. MACKENZIE.

Extract from the Glasgow Courier.

TO THE EDITOR.

SIR,—The letters from Caithness respecting the Mermaid, which have lately appeared in the public prints, having excited considerable attention, the Glasgow Philosophical Society, by their secretary, wrote to the Rev. Mr. Mackay, minister of Reay, to ascertain the authenticity of these documents. The following polite answer was, in due course, received by the Society.—I am, &c.

JAMES WATT, Pres.

Society's Hall, Oct. 16, 1809.

SIR,—In terms of your and the Philosophical Society's request, I have to inform you, that my daughter wrote a letter to Mrs. Innes, Dowager of Sandside, concerning the strange phenomenon seen near this place, merely for private information, without the smallest suspicion of any other use to be made of it. But having excited Sir John Sinclair's curiosity, he obtained a copy of this letter, and it seems that by one of his friends it found its way to the English newspapers. Though I never saw the letter, either origi-

nally or in the papers, I have good reason to suppose that it is a genuine document.

With regard to the animal's timidity, I have only to say, that two servant maids and a boy being at the time down among the rocks, it was the cries of the boy that made it first disappear. It soon reappeared farther out in the sea, and ultimately disappeared, after having taken its course a considerable way along the shore, the spectators following, and walking on until they lost hope of its coming up again. The schoolmaster of Thurso's letter is also genuine; and he is a gentleman whose veracity is not called in question.

I am, &c.

DAVID MACKAY.

Reay, Oct. 3, 1809.



THE UNICORN.

THIS is another offspring of the lively and fruitful fancy of man. It is represented as a compound of the horse and stag. The head and body belong to the equine species, but the hoofs are those of a stag, and the horn, the tufts, and the tail are anomalies. This

animal holds a high rank in heraldry, and is one of the supporters of the royal arms of England.

The Unicorn is often mentioned in the Scriptures, and by many commentators is supposed to be the rhinoceros. From the book of Job, we learn that he was not only an animal of considerable strength, but also of a very fierce and intractable disposition:—"Will the Unicorn be willing to serve thee, or abide by thy crib? Canst thou bind the Unicorn with his band in the furrow? or will he harrow the valleys for thee? Wilt thou trust him, because his strength is great? or wilt thou leave thy labour to him? Wilt thou believe him, that he will bring home thy seed, and gather it into thy barn?" Ch. xxxix. v. 9—11. In the book of Psalms, xcii. v. 10. "My horn shalt thou exalt like the horn of a Unicorn."

Another liberty has been taken with the horse. Mythology has added wings to this elegant figure, and called it *Pegasus*. This animal sprang from the blood of Medusa, when Perseus had cut off her head. He bears a close analogy to the *Ippogrifo* of Ariosto, and is often seen in coats of arms.

THE CENTAUR.

LIKE the Sphinx, this creature is a compound of the brute and human form, it consisting of the body of a man united to that of a horse, the former rising from the chest of the latter. Absurd as such a combination must appear to the anatomist, and ill adapted as it seems for agility, it is not wholly devoid of grace, and is very frequently to be met with in antique sculptures. According to Grecian mythology, these creatures inhabited Thessaly; and poetry has celebrated their combats with Hercules, Theseus, and Pirithous, the latter of whom was the leader of the

Lapithæ, a people who vanquished the Centaurs. Their fabulous existence had its origin in that love of the marvellous which is always found to exist in the earlier stages of society, and which induces men to interpret metaphorical descriptions in a literal sense. Hence the natives of Thessaly being distinguished by their skill in horsemanship, at a time when their neighbours were unacquainted with the art of riding, they would be described as combining the powers both of the human and equine race; in like manner as some of the American tribes, when they first beheld the Spaniards mounted on horses, mistook them for a different race of beings from themselves, supposing them to be half men and half quadrupeds. It is by availing itself of such errors, that fiction, whether it employs poetry or painting for its vehicle, creates those fanciful beings and shapes with which it delights to excite curiosity and gratify the imagination.

THE SATYR.

ALTHOUGH the Satyr of the ancient poets can hardly be termed an animal, as the human form predominates, he may be introduced here as our final example of these fabulous creatures. Satyrs and Fauns are represented as men with goats' legs and horns, and were supposed to be the attendants of Bacchus. The idea of such beings was probably derived from some of the larger species of apes. Exaggerated and erroneous reports of these creatures were probably first introduced into Greece by the companions of Bacchus, on his return from his Indian expedition. Hence, in course of time, they came to be considered as his attendants, and were described as inhabiting woods and forests, of which they were regarded as the protecting deities. Probably, too, they were partly per-

sonifications, intended to express the debasing influence of animal propensities and sensual indulgence; and as nothing tends more than intoxication to reduce man to a level with the brutes, since it deprives reason of all control over the passions, the form of the Satyr may have been ingeniously intended as a visible representation of the degraded state of those who surrender up the noblest prerogative of man. Whether such was really or not the idea of those who first feigned the existence of such creatures, we may very rationally adopt this explanation, and thereby deduce an important moral lesson from what is in itself an extravagant fiction.



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